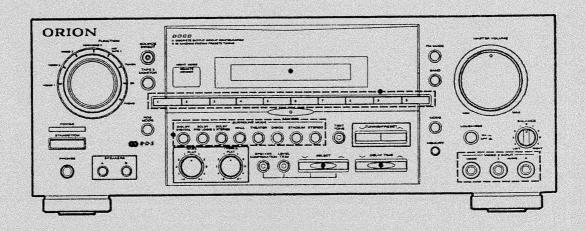
# SERVICE MANUAL

## ORION DRD-810

AC-3 Audio Video Receiver



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Best.Nr. SM810

#### **SPECIFICATIONS**

#### Amplifier Section

Stereo mode :

160 watts x 2 (8 ohm/EIAJ)

Surround Output Power (0.5% THD, 1 kHz, 8 ohms):

Surround mode:

125 watts x 5 (8 ohm/FIAJ)

Total Harmonic Distortion (Front):

0.02 % (at 120 watts, 1 kHz)

Delay Time:

DOLBY DIGITAL: 0 - 15 ms DOLBY PRO LOGIC: 15 - 30 ms

Input Sensitivity/Impedance:

PHONO: 2.5 mV/47 k ohms

\*LINE: 220 mV/47 k ohms

Output Level / Impedance

TAPE 1/2 REC: 220 mV/2.2k ohms

Frequency Response:

PHONO: 20 Hz - 20 kHz, ±1 dB \*LINE: 20 Hz - 60 kHz. +1/-3 dB

Signal-to-Noise Ratio:

PHONO: 70 dB

\*LINE: 90 dB

Tone Control:

BASS: ±10 dB at 100 Hz TREBLE: ±10 dB at 10 kHz

#### **Digital Audio Section**

Sampling frequency: 32 kHz, 44.1 kHz, 48 kHz

DIGITAL Input Level/Impedance

VIDEO 1 (OPTICAL): -15 dBm - -21 dBm VIDEO 2 (COAXIAL): 0.5 Vp-p/75 ohms

#### **FM Tuner Section**

(Without notes 100.1 MHz, 65 dBf)

Tuning Range:

87.5 MHz - 108.0 MHz (50 kHz steps)

Usable Sensitivity (IHF):

Mono: 15 dBf

50 dB Quieting Sensitivity:

Mono: 23 dBf Stereo: 40 dBf

Capture Ratio: 2.0 dB

Image Rejection Ratio: 40 dB AM Suppression Ratio: 40 dB

Total Harmonic Distortion (1 kHz):

Mono: 0.4% Stereo: 0.5%

Frequency Response: 30 Hz - 15 kHz

Stereo Separation (1 kHz): 40 dB

Signal-to-Noise Ratio: Mono: 68 dB

Stereo: 65 dB

#### **AM Tuner Section**

Tuning Range:

522 kHz - 1,620 kHz (9 kHz steps)

Usable Sensitivity: 55 dB/m

Total Harmonic Distortion: 0.8% at 85 dB/m

Signal-to-Noise Ratio: 45 dB at 85 dB/m

Video Section

Input Sensitivity /Impedance: 1.0 Vp-p/75 ohms Output Level /Impedance: 1.0 Vp-p/75 ohms

General

Power Requirements: 230 V AC, 50 Hz

Power Consumption: 320 W

Dimensions (W x H x D): 435 x 165 x 403 mm

Weight (net): 11.0 kg

#### Standard Accessories :

AM Loop Antenna x 1 FM Lead-Type Antenna x 1 Remote Control Unit x 1

- \* LINE means CD, MD/TAPE 1, VIDEO 1, VIDEO 2, VIDEO 3 and VCR/VIDEO 4.
- Improvements may result in specifications and features changing without notice.
- Illustrations may differ slightly from production models.

## **SAFETY PRECAUTIONS**

#### WARNING

Before servicing this unit, familiarize yourself with the following precautions:

1. Many electrical and mechanical parts in this chassis have special safety characteristics that often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc.. Replacement parts that have these special safety characteristics are identified in this manual and its supplements: electrical components having such features are identified by A in the schematic diagram and the parts list.

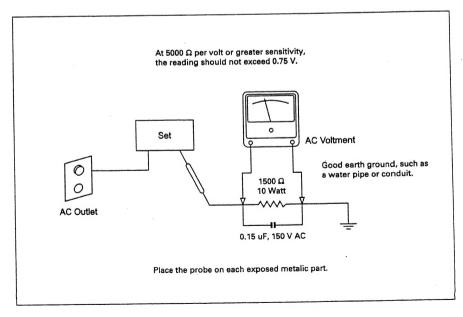
Before replacing any of these components. read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characterics as specified in the parts list may create shock, fire, or other hazards.

2. Before returning the set to the customer, always do an AC leakage current check on the

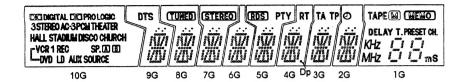
exposed metal parts of the cabinet, such as terminals, screw heads, and metal overlays, to be sure the set is safe to operate danger of electrical shock. Plug the AC line cord directly into a 120 V AC outlet (120 V AC version only). (Do not use a line isolation transformer during this check). Be sure your AC voltmeter has a sensitivity of 5000  $\Omega$  per volt or greater. Then connect a 1500  $\Omega$  10 watt resistor, paralleled by a 0.15 uF 150 V AC capacitor, between a known good earth ground (such as a water pipe, or conduit) and the exposed metalic is parts, one at a time. Measure the AC voltage across the combination of a 1500  $\Omega$  resistor and a 0.15 uF capacitor.

Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metalic part. Voltage measured must not exceed 0.75 V RMS.

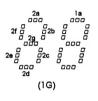
This corresponds to 0.2 mA AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



## FIP DISPLAY

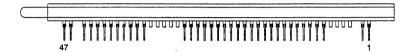






#### **ANODE CONNECTION**

	10G	9G	8G	7 <b>G</b>	6G	5 <b>G</b>	4G	3G	2G	1G
P1	SOURCE	d2	d2	d2	d2	d2	d2	d2	d2	kHz
P2	AUX	d1	d1	d1	d1	d1	d1	d1	d1	1d
P3	LD	е	0	8	θ	е	е	8	е	1e
P4	DVD	r	r	г	r	r	г	г	r	1c
P5 ·	VCR 1	р	р	р	р	р	р	р	Р	1g
P6	REC	n	п	n	n	n .	n	n	'n	1f
P7	L	С	С	С	С	С	С	С	С	1b
P8	SP.	f	f	f	. f	f	f	f	f	1a
P9	A	g	g	g	g	g	g	g	g	M
P10	B	m	m	m	m	т	m	m	m	2d
P11	CHURCH	h	h	h	h	h	h	h	h	2e
P12	DISCO	j	j	j	j	j	j	j	j	2c
P13	STADIUM	k	k	k	k	k	k	k ·	k	2g
P14	HALL	b	b	b	b	b	b	b	b	2f
P15	THEATER	a2	a2	a2	a2	a2	a2	a2	a2	2b
P16	PCM	a1	a1	a1	a1	a1	a1	a1	a1	2a
P17	AC-3	S1	S1	S1	S1	S1	S1	S1	. S1	DELAY.
P18	STEREO	S2	S2	S2	S2	S2	S2	S2	S2	PRESET C
P19	3	S3	S3	S3	S3	S3	S3	S3	S3	MEM
P20	00	S4	S4	S4	S4	S4	S4	S4	S4	TAPE
P21	DIGITAL					RDS	Dp	TA	Ð	MH
P22	DICI PRO LOGIC	DTS	TUNED	STEREO		PTY	RT	TP		mS



Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Connection	F2	F2	NP	NX	NX	NX	NX	P22	P21	P20	P19	P18	P17	P16	P15
Pin No.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Connection	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	Р3	P2	P1	NX
									J	1	1		·		
Pin No.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Connection	NX	NX	NX	NX	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	NP

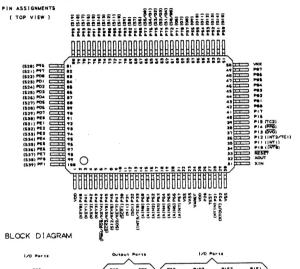
Pin No.	46	47
Connection	F1	F1

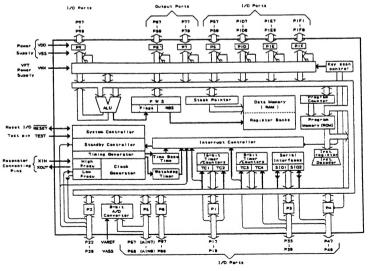
#### IC PIN FUNCTION (ANAM1256M, TMP87PM78F)

PIN No.	SYMBOL	1/0	DESCRIPTION
1	VDD		POWER SUPPLY (+5V)
2,3,7,9	N/C		•
4	STB	0	NJU3714 CONTROL OUTPUT
5	N/C		•
6	AC3L	0	When "AC-3 MODE" is "L"
8	PROCT IN	1	INPUT FROM PROTECTION CIRCUIT
10	CLK	0	NJU3714 CONTROL OUTPUT
11	RDS DATA	1	RDS DATA IN INPUT
12	DATA	0	NJU3714 CONTROL OUTPUT
13	RDS CLK	1	RDS CLK INPUT
14	STIN	l i	ST/MO INPUT
15	TUNED IN	i	TUNED INPUT
16	FML	0	When "FM FUNC." is "L"
17~21	KEY IN	1 -	KEY MATRIX INPUT
			GROUND
22,23,30	GND	<del> </del>	
24	VREF	1	A/D CONVERTOR REFERENCE VOLTAGE
25	VDD	<del> </del>	POWER SUPPLY (+5V)
26	BACK UP	1	BACK UP MODE CONTROL INPUT
27	GND	ļ	GROUND
28,29	FSW IN	1	FUNC. SW UP/DOWN CONTROL INPUT
31,32	X-TAL IN/OUT	1/0	8MHz CRYSTAL CONNECTION TERMINAL
33	RESET		SYSTEM RESET INPUT
34	REMOTE IN	1	REMOTE CONTROL INPUT TERMINAL
35	N/C		-
36	BUS OUT	0	SYSTEM CONTROL OUTPUT
37	PWR ON H	0	When "POWER ON" is "H".
38	SUR ON/OFF	0	When "SURROUND ON" is "H".
39,45	N/C		•
40	STB	0	ELECT VOL. (TC9299) CONTROL OUTPUT
41	CE	0	PLL (LM7001) CONTROL OUTPUT
42	DATA	0	·
43	CLK	0	FUNC. (TC9164) REC, SW (TC9163) ELECT. VOL. (TC9299) CONTROL OUTPUT
44	STB	0	1
46	HREQ	0	
47	RESET	0	1
48	CLK	0	SUB u-COM CONTROL OUTPUT
49	DATA	0	1 .
50	-VFLP	1	(-33V) NEGATIVE POWER SUPPLY FOR FIP BLINKING
51~82	FIP	1 0	FIP SEGMENT CONTROL OUTPUT
83~88	OPTION '	1 -	
89	TUN M	<del>                                     </del>	ARE OPTION PORT
90			TUNER MUTE ON/OFF CONTROL OUTPUT
	SPK A	0	SPEAKER A ON/OFF CONTROL OUTPUT
91	SPK B	0	SPEAKER B ON/OFF CONTROL OUTPUT
92	VOL LED	0	VOLUME LED CONTROL OUTPUT
93~94	VR UP/DN	0	MASTER VOL. UP/DN CONTROL OUTPUT
95	SUR.D	0	SOURCE DIRECT ON/OFF CONTROL OUTPUT

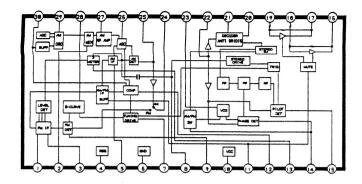
PIN No.	SYMBOL	1/0	DESCRIPTION	
96	STBYL	0	ST-BY LED CONTROL OUTPUT	
97	H/P IN	1	HEAD PHONE INPUT ON/OFF CONTROL INPUT	
98	FUNC. M	0	FUNC. MUTE ON/OFF CONTROL OUTPUT	
99	DLED	0	DINAMIC LED CONTROL OUTPUT	
100	20dBM	0	-20dB MUTE CONTROL OUTPUT	

U-COM PIN ASSIGNMENT & BLOCK DIAGRAM[BVIANAM1256M:TMP87PM78F, QFP]

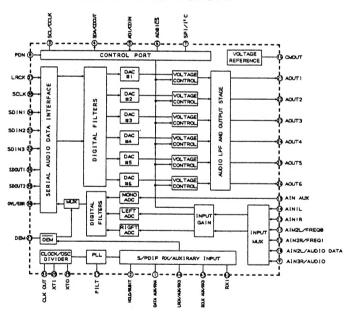




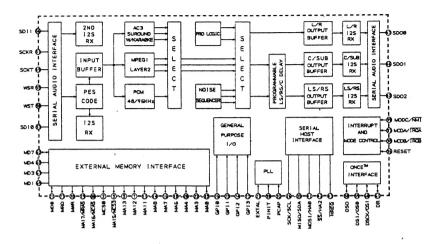
#### IC12 LA1836M BLOCK DIAGRAM



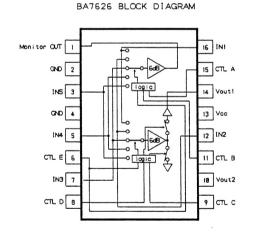
#### IC52 CS4226 BLOCK DIAGRAM

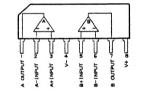


#### IC53 DSP56009 DIAGRAM



NJM4558AL BLOCK DIAGRAM

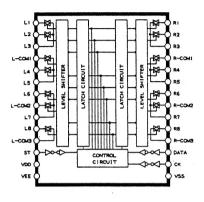




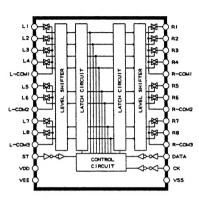
IC41 LC4956 BLOCK DIAGRAM

8

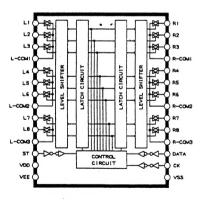
#### IC30 TC9162 BLOCK DIAGRAM

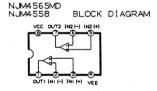


IC20 TC9164 BLOCK DIAGRAM

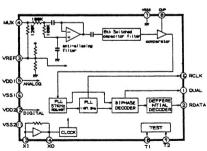


IC23 TC9163 BLOCK DIAGRAM





IC75 BU1923F BLOCK DIAGRAM



## MEASUREMENTS AND ADJUSTMENTS

## **■ ALIGNMENT INSTRUCTIONS**

#### **EQUIPMENT NEEDED:**

AM Signal Generator FM Signal Generator

Oscilloscope

VTVM(AC, DC)

Test loop antenna (AM Adjustment)

Dummy antenna (FM Adjustment)

Stereo signal modulator

Frequency counter

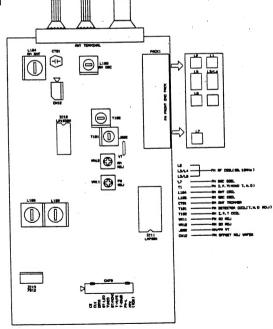
Distortion analyser

#### **IMPORTANT**

- 1. Check power-source voltage.
- 2. Set the function switch to band aligned.
- 3. Keep the signal input as low as possible to adjust accurately.
- 4. Modulation and modulation frequency.

ltem Band	Modulation	Modulation frequency
AM	30%	400Hz
FM	100%(75KHz Dev.)	400Hz

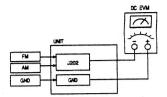
#### **■ ADJUSTMENT POINT**



## 1.TUNING FREQUENCY RANGE ADJUSTMENTS

(FM) (AM) DC VOLTMETER ...... CONNE DC VOLTMETER ...... CONNE

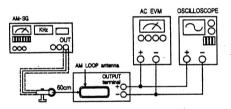
.... CONNECT TO TEST POINT J202 and GND .... CONNECT TO TEST POINT J202 and GND



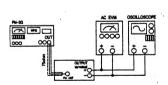
NO.	Band	Frequency	Adjust for	Adjustment
1	FM	87.50MHz	1.6V	L7
2	AM	522KHz	1V	L105

#### 2.AM TRACKING ADJUSTMENT

BAND	Step	Frequency	Adjust for	Adjustment			
	1	612KHz	Maximum sensitivity	T102, L104 ··			
АМ	2	1503KHz	Maximum sensitivity	CT01, T102			
	3	Repeat steps 1 and 2 several times.					

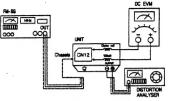


#### 3.FM-RF ADJUSTMENT



NO.	Frequency	Adjust for	Adjustment			
1	90.10MHz	Maximum Sensitivity	L2, L3, L4, L5, L6			
2	Repeat step 1 several times.					

#### 4. FM MONO DISTORTION ADJUSTMENT

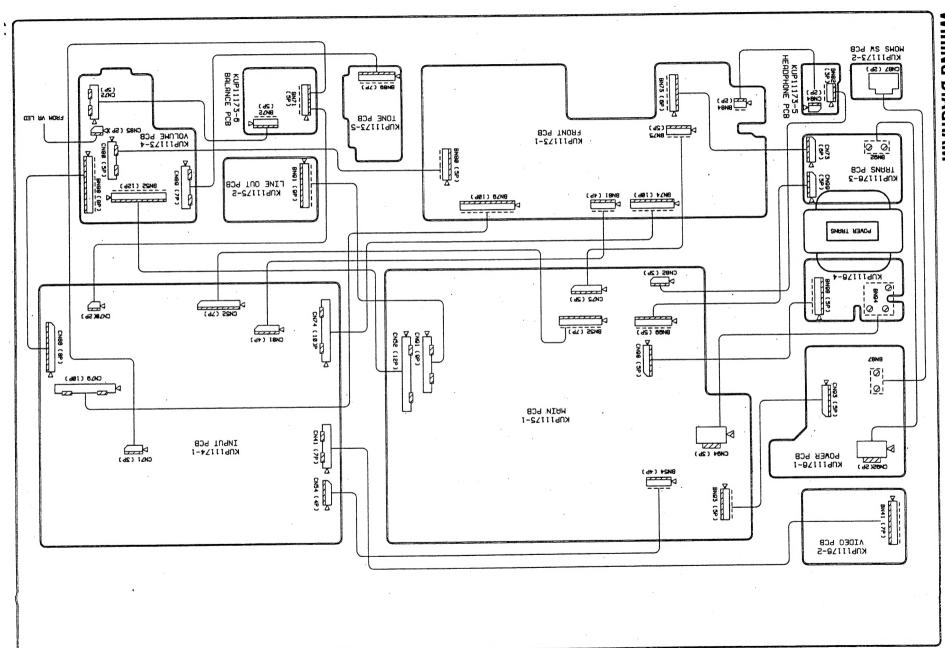


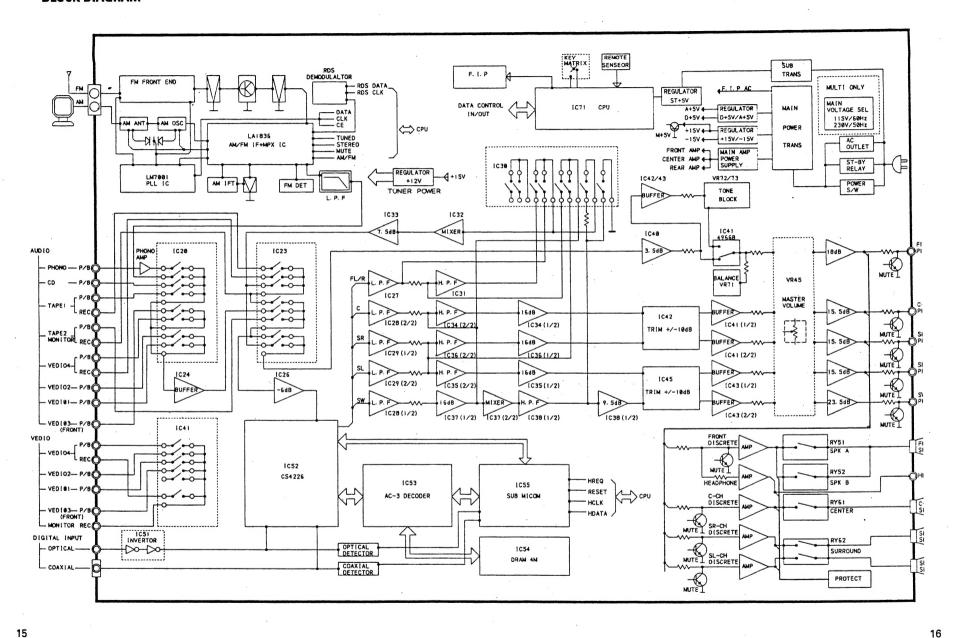
NO.	Frequency	Adjust for	Adjustment			
1	100.50MHz	DC Voltmeter 0V	T101			
2	100.50MHz	Minimum T.H.D	T101			
3	Repeat steps 1 and 2 several times.					

#### 5. FM/AM AUTO STOP LEVEL ADJUSTMENT

FM Signal Generator .........Connect to FM ANT Jack (FM IN) through the dummy. AM Signal Generator ........Connect to AM ANT. Coil through the Loop antenna.

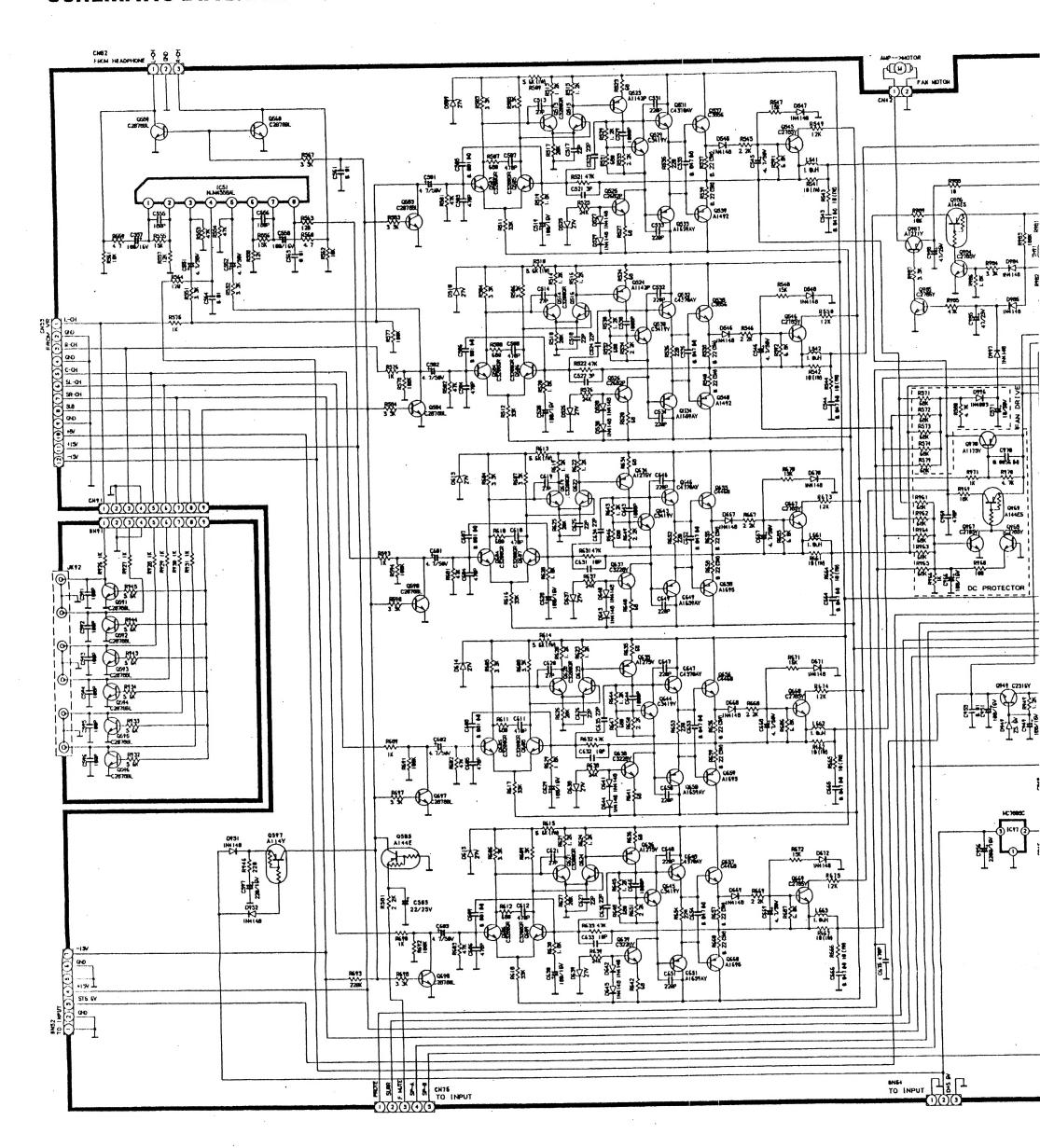
BAND	Step	Signal Generator	Adjust for	Adjustment
AM 2	1	990KHz 88dB	TUNED Display OFF	VR12
	2	990KHz 88dB	TUNED Display ON	VR12
	1	100.1MHz 32dB	TUNED Display OFF	VR11
FM 2 100.1MH		100.1MHz 32dB	TUNED Display ON	VR11

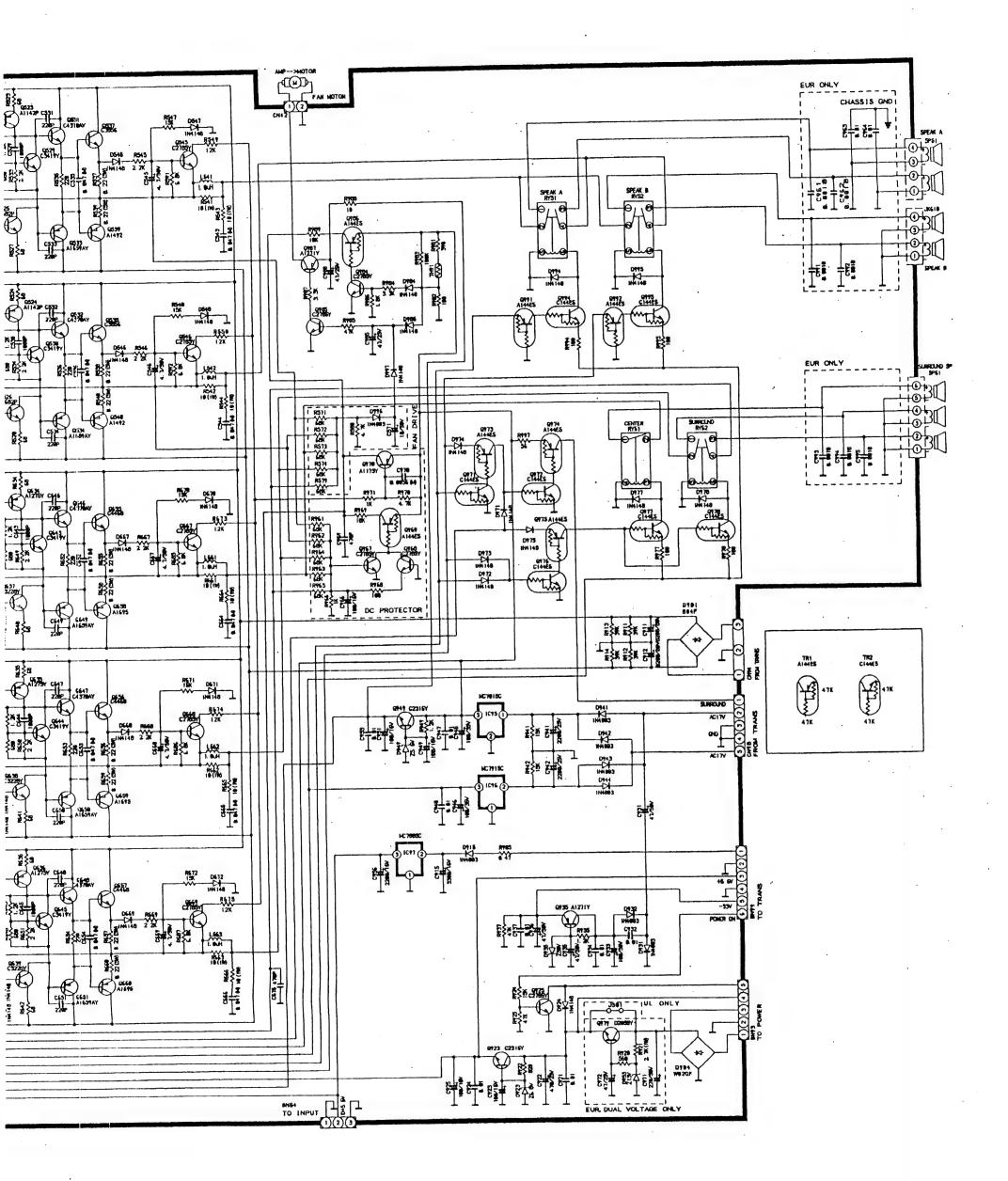




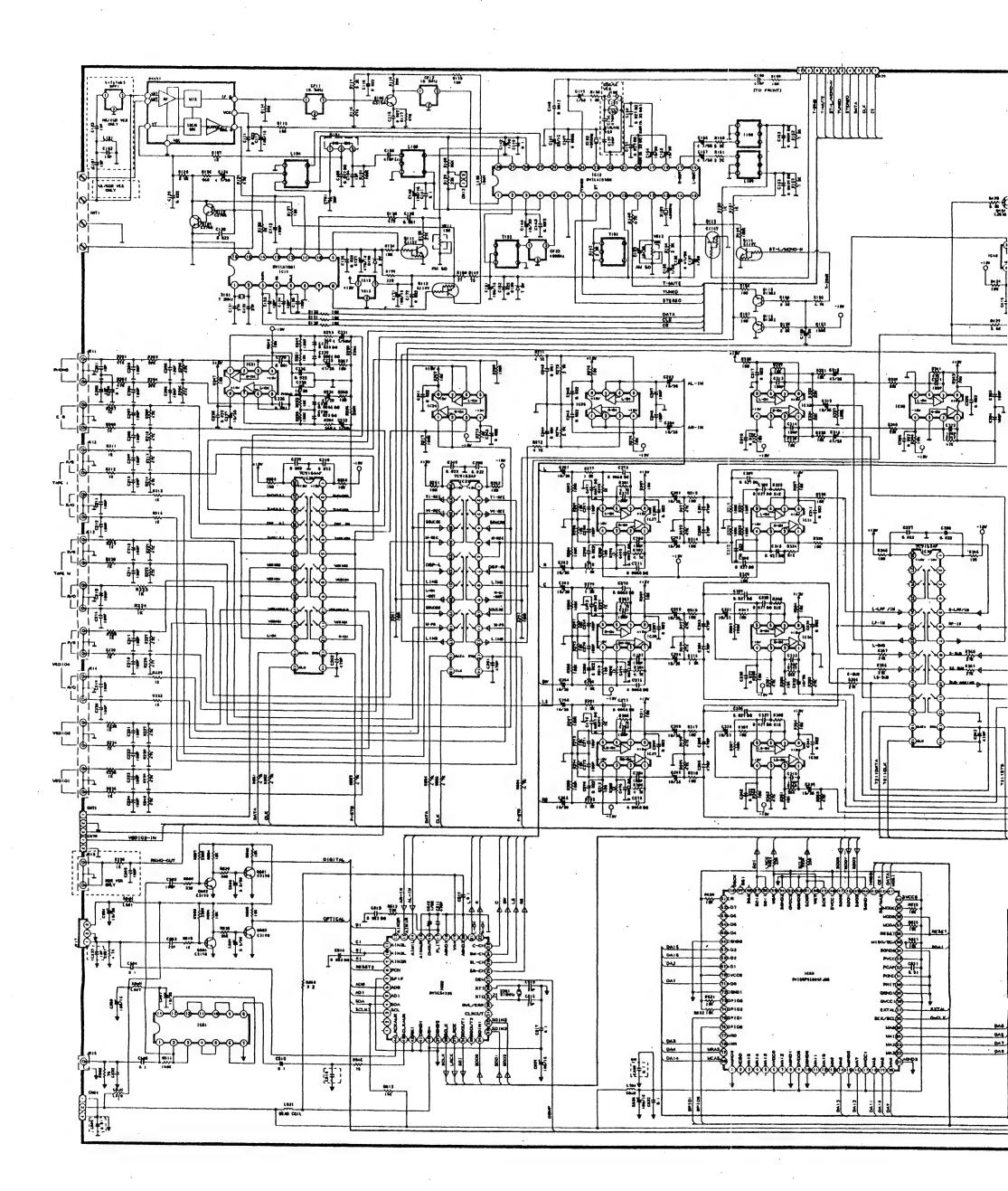
15

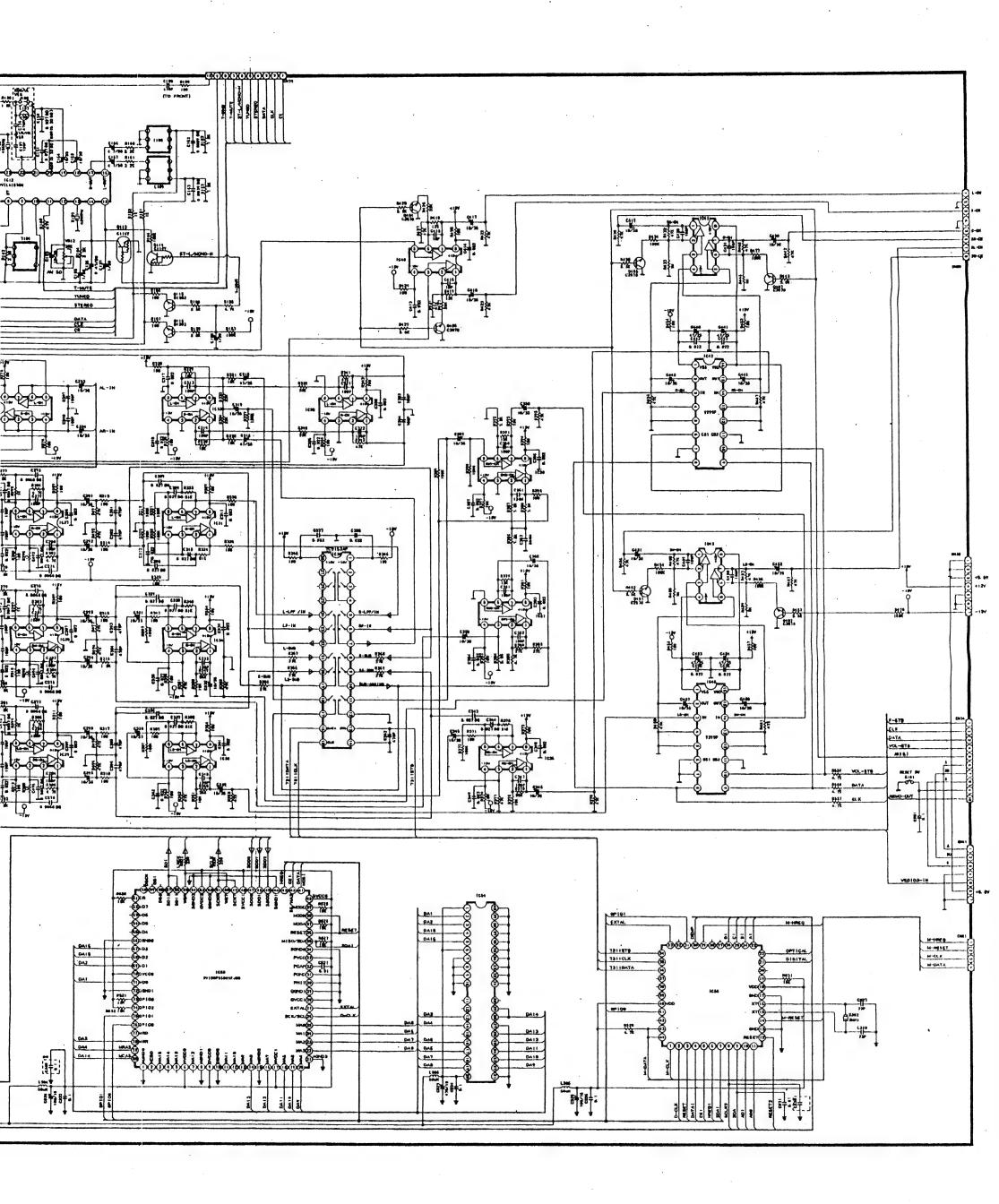
## **SCHEMATIC DIAGRAM**

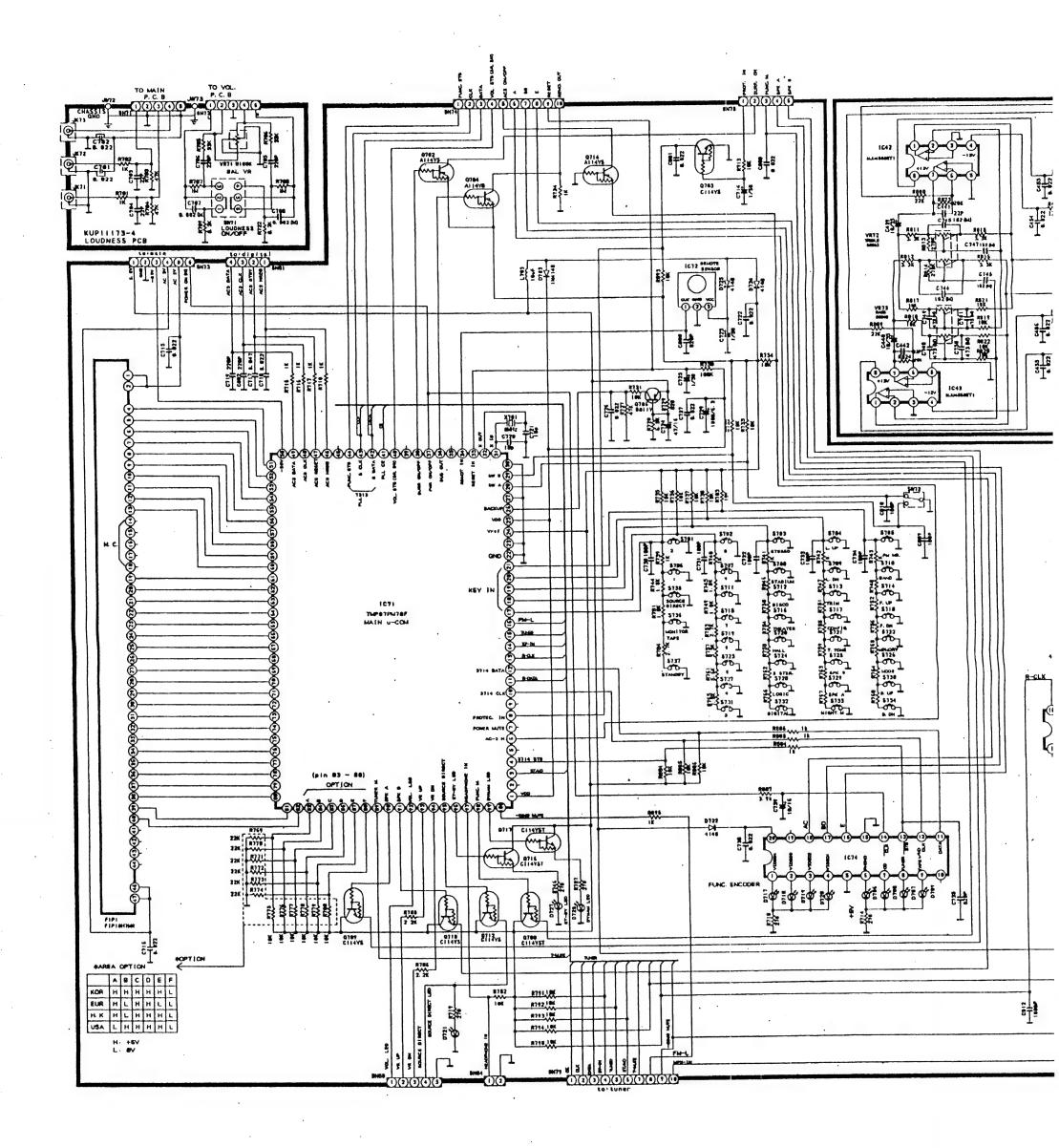


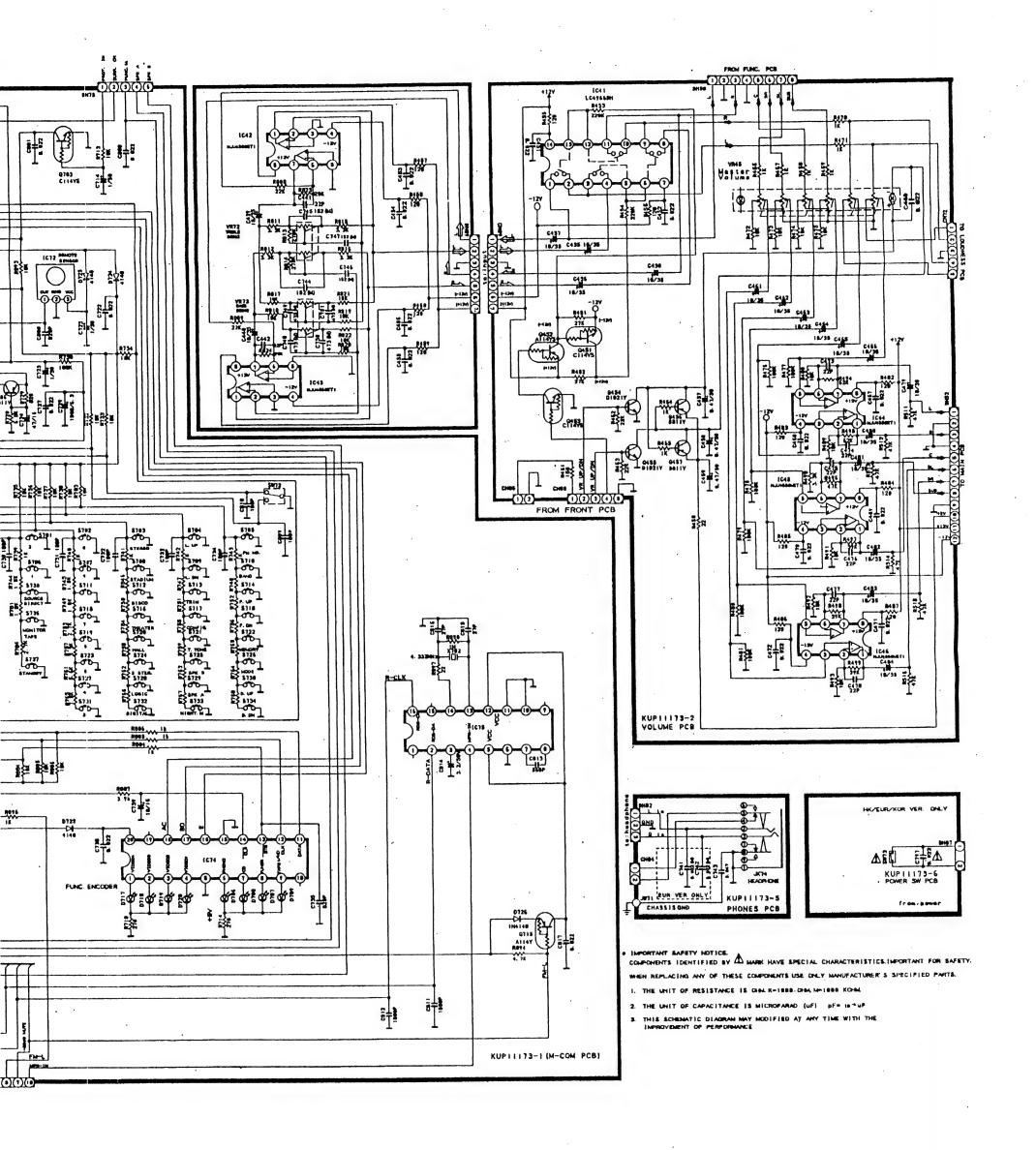


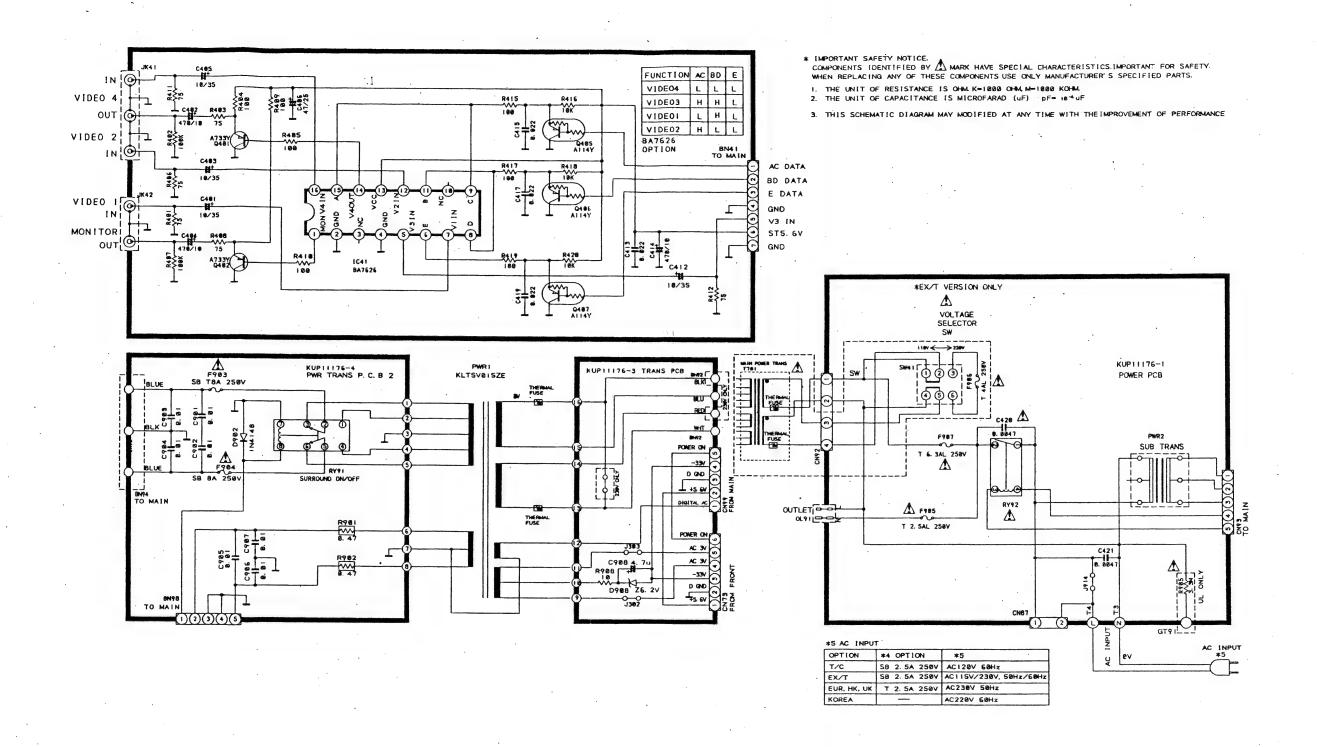
.

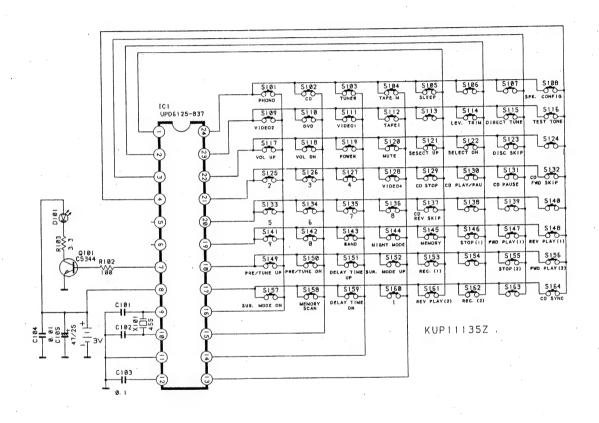


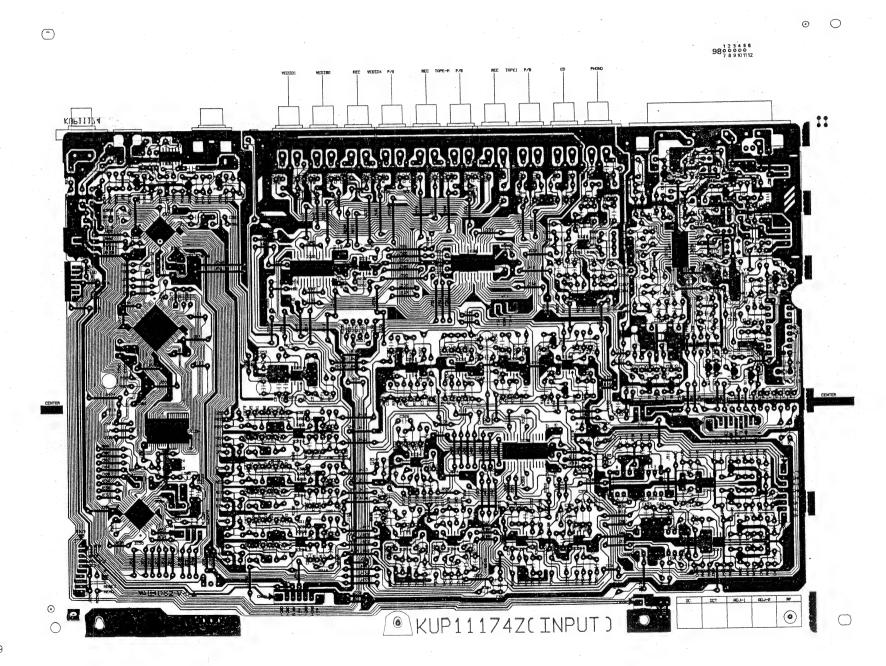


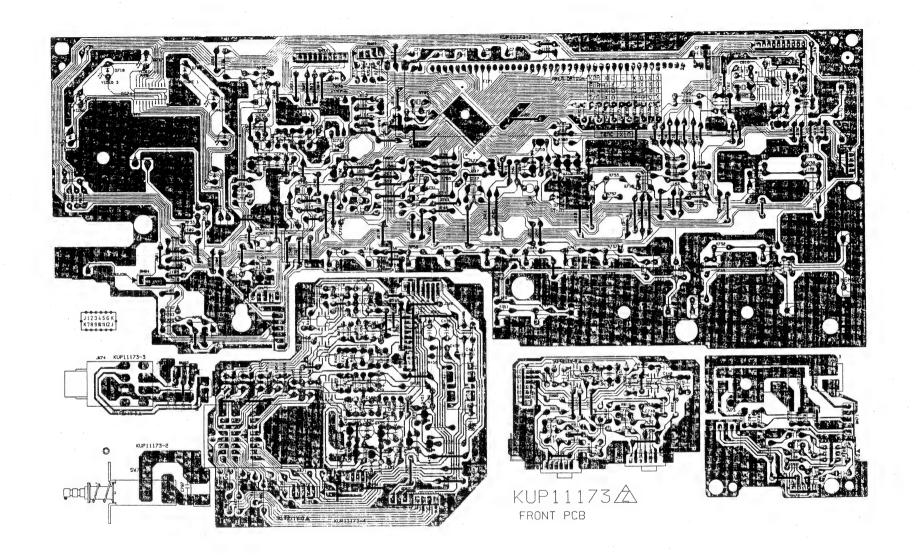


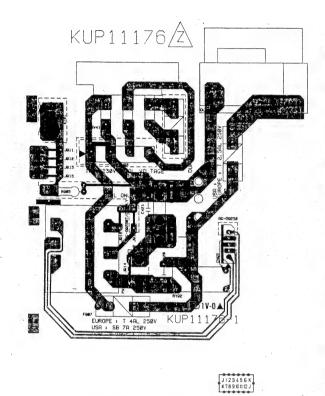


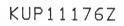


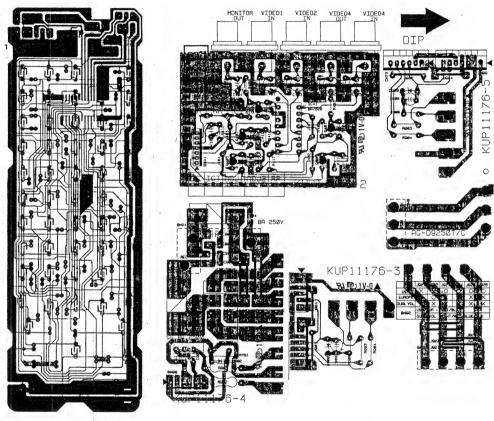


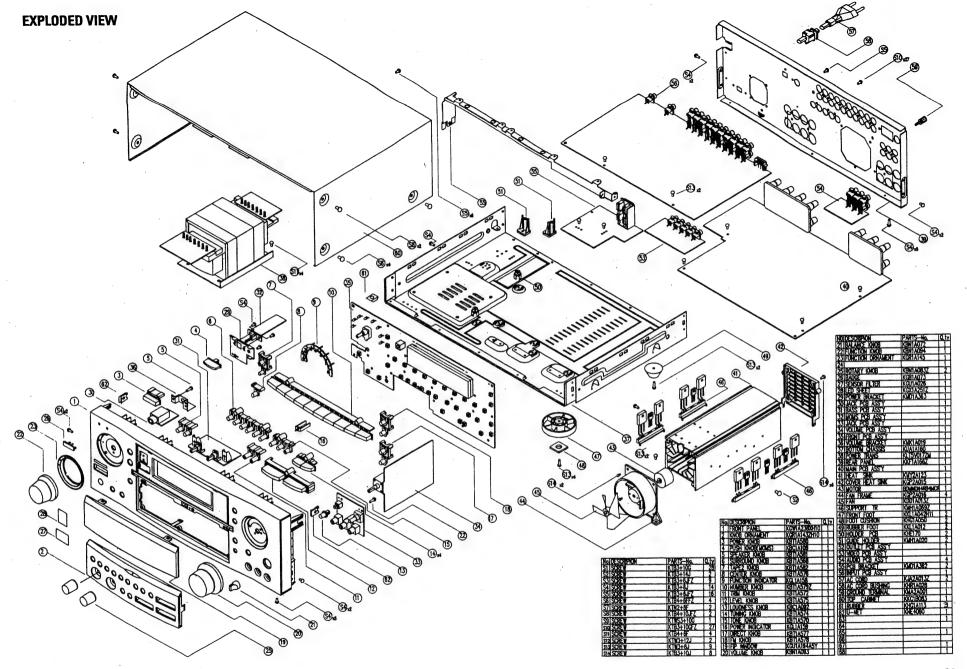


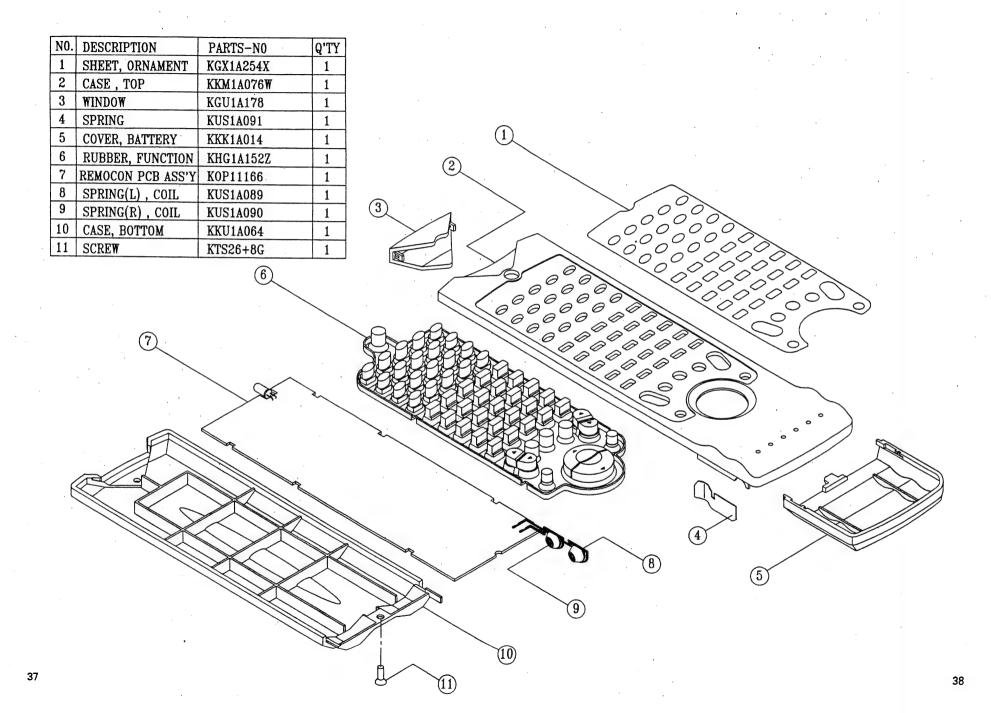












#### **■ PARTS LIST**

#### ATTENTION

- 1. When placing an order for parts, be sure to list the Part No., Model No, and the description of each part.
- Otherwise, the non-delivery of the part or the delivery of a wrong part may result.

  2. Please make sure that Part No. is correct when ordering.
- If not, a part different from the one you ordered may be delivered.
- Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, plaese use this Parts List for all future reference.

#### **HOW TO USE THIS PARTS LIST**

- This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
- 2. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
- 3. How to rear the Parts List.

#### **■ RESISTORS AND CAPACITORS**

Notes: Part numbers are indicated for most mechanical parts.

Please use this part number for parts order.

· IMPORTANT SAFETY NOTICE.

Components identified by A mark have special characteristics important for safety. When replacing any of these components, use only manufacture's specified parts.

Example

The unit of resistance is OHM(Ω)

K=1000(Ω), M=1000(KΩ)

The unit of capacitance is MICROFARED(μF)
 P=10 <sup>4</sup>μF

#### ■ Numbering System of Resistor

#### ■ Numbering System of Capacitor

#### Example

KRD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value

KCKR	1H	101	K	В
Type	Voltage	Value	Tolerance	Peculiarity

Resistor Type	Wattage	Tolerance
KRD: Carbon	20:1/5W	F:= ±1%
KRG: Metal Oxide	25:1/4W	J:= ±5%
	50:1/2W	K:= ±10%
	1:1W	
KRF:Metal Cement	2:2W	
	3:3W	1

	Volt	Tolerance	
Capacitor Type	ECEA Type Other		
KCB:Ceramic	0J:6.3V	1H:50V DC	C: ±0.25pF
KCC:Ceramic	1A:10V	1:125V DC	G: ±2%
KCK:Ceramic	1C:16V	KC:400V AC	J: ±5%
KCQI:Polyester	1E:25V		K: ±10%
KCQP:Polypropylene	1H:50V		Z: +80%, -20%
KCQS:Polystyrol	1V:35V		

#### WARNING

 $\Delta(*)$  Indicates safety critical components. For continued safety, replace safety critical components only with manufacture's recommended parts.

#### **AVERTISSEMENT**

⚠(\*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDES PAR LÉ FABRICANT.

SERVICE MANUAL \_\_\_\_\_

#### ELECTRICAL PARTS LIST

REF	No.	PARTS No.	DESCRIPTION	REF No.	PARTS No.	DESCRIPTION
		P.C BOARD BLOCK		C744~C747	KCQI1H152JZT	CAP, MYLAR
1		KOP11173	FRONT PCB ASS'Y	C748~C751	KCQI1H473JZT	CAP, MYLAR
2		KOP11174	INPUT PCB ASS'Y	C800	KCBS1H821KBT	CAP, CERAMIC
3		KOP11175	MAIN PCB ASS'Y	C801	KCBS1E223ZFT	CAP , CERAMIC
4		KOP11176	VIDEO PCB ASS'Y	C802	KCBS1H181KBT	CAP, CERAMIC
FRONT	PCB BL	OCK CONSISTS FOL		C808	KCBS1E223ZFT	CAP, CERAMIC
		. u-COM P.C. BO	RD	C809~810	KCBS1H181KBT	CAP, CERAMIC
		. VOLUME P. C. B		C811~812	KCBS1H102KBT	CAP, CERAMIC
		. TONE CONTROL		D703	KVD1N4148MT	DIODE
1		. LOUDNESS SW		D706~D721	KVDSLR325MCA47	
1		. HEADPHONE P		D722~D725	KVD1N4148MT	DIODE
1		. POWER SW P.		D727~A728	KVD342VCF02T085	
MAIN F	CB BLO	CK CONSISTS FOLL		IC42~IC46	BVINJM4558MTE1	•
		. MAIN P. C. BOA		IC71	BVITMP87PM78F	I. C
1		. PREOUT P. C. B		IC74	BVINJU3714G	I. C
INPUT	PCB BL	OCK CONSISTS FOL		L703	KLQ02C100KT	COIL , AXAIL
		.INPUT P. C. BOA		Q452	KVTDTA114YST	T. R
VIODE	PCB BL	OCK CONSISTS FOL		Q454~Q455	KVTKSD1021YT	T. R
		. VIDOE CONTROL		Q456~Q457	KVTKSB811YT	T. R
l		. OUTLET P. C. B	OARD	Q702	KVTDTA114YST	T. R
		. TRANS P. C. BC		Q703	KVTDTC114YST	T. R
REMO	CON PC	B BLOCK CONSISTS		Q704	KVTDTA114YST	T. R
		. REMOTE CONTR		Q706	KVTKSB811YT	T. R
		1. FRONT PCB AS		Q708~Q712	KVTDTC114YST	T. R
1		KUP11173Z	PCB , FRONT	Q714	KVTDTA114YST	T. R
C435~	C440	KCEA1VH100T	CAP, ELELCT	Q716~Q717	KVTDTC114YST	T. R
C441,0	2442	KCBS1H220JT	CAP, CERAMIC	R450	KRD20TJ220T	RES , CARBON
C451~	C456	KCBS1E223ZFT	CAP, CERAMIC	R451~R452	KRD20TJ273T	RES , CARBON
C457~	C459	KCEA1HHR47T	CAP, ELECT	R453~R454	KRD25TJ224T	RES , CARBON
C460		KCKR1H223ZF	CAP, CERAMIC	R455~R459	KRD20TJ121T	RES, CARBON
C461~	C466	KCEA1VH100T	CAP, ELECT	R460	KRD25TJ121T	RES , CARBON
C467~	C472	KCBS1E223ZFT	CAP, CERAMIC	R461	KRD20TJ151T	RES , CARBON
C473~	C478	KCBS1H220JT	CAP, CERAMIC	R462~R463	KRD20TJ223T	RES, CARBON
C479~	C484	KCEA1VH100T	CAP, ELECT	R464~R467	KRD20TJ102T	RES, CARBON
C703,0	2704	KCCT1H220JC	CAP, CERAMIC	R468~R469	KRD25TJ102T	RES, CARBON
C705,0	2706	KCKT1H221KB	CAP, CERAMIC	R470, R471	KRD20TJ102T	RES , CARBON
C707,0	2708	KCQI1H823JZT	CAP, MYLAR	R472~R475	KRD20TJ103T	RES , CARBON
C714		KCEA1HKS1R0T	CAP, ELECT	R476~R481	KRD20TJ104T	RES , CARBON
C715,0	2716	KCBS1E223ZFT	CAP, CERAMIC	R482	KRD25TJ121T	RES , CARBON
C717		KCBS1H473ZFT	CAP ,CERAMIC	R483~R487	KRD20TJ121T	RES , CARBON
C718		KCBS1E223ZFT	CAP, CERAMIC	R488, R489	KRD20TJ183T	RES , CARBON
C719		KCBS1H221KBT	CAP, CERAMIC	R490	KRD20TJ332T	RES , CARBON
C720,0	C721	KCBS1H180JCT	CAP, CERAMIC	R491~R493	KRD20TJ183T	RES , CARBON
C722		KCBS1E223ZFT	CAP, CERAMIC	R494~R495	KRD20TJ623T	RES , CARBON
C723		KCEA1HKS1R0T	CAP, ELECT	R496	KRD20TJ473T	RES, CARBON
C724		KCEA1CKS470T	CAP, ELECT	R497~R499	KRD20TJ393T	RES , CARBON
C726,0	2727	KCBS1E223ZFT	CAP, CERAMIC	R511~R516	KRD20TJ473T	RES, CARBON
C729		KCEA0JU102T	CAP, ELECT	R701, R702	KRD20TJ102T	RES , CARBON
C730~	-C734	KCBS1H181KBT	CAP, CERAMIC	R703~R704	KRD20TJ473T	RES, CARBON
C735		KCBS1H821KBT	CAP, CERAMIC	R705, R706	KRD20TJ333T	RES , CARBON
C739		KCEA1CKS100T	CAP, ELECT	R707, R708	KRD20TJ105T	RES , CARBON
C743		KCBS1H473ZFT	CAP, CERAMIC	R709	KRD20TJ822T	RES , CARBON

REF No.	PARTS No.	DESCRIPTION	REF No.	PARTS No.	DESCRIPTION
R710	KRD20TJ271T	RES, CARBON	BN79	KWZAGD9250BN79	
R713	KRD20TJ103T	RES , CARBON	BN80	KWZAGD9250BN80	WIRE , ASS'Y
R714	KRD20TJ271T	RES , CARBON	BN81	KWZPR0800BN81	WIRE , ASS'Y
R715~R718	KRD20TJ102T	RES, CARBON	BN82	KWZAGD9250BN82	WIRE , ASS'Y
R719	KRD25TJ271T	RES, CARBON	BN84	KWZAGD9250BN84	WIRE , ASS'Y
R722	KRD20TJ822T	RES, CARBON	BN88	KWZAGD9250BN88	WIRE , ASS'Y
R724	KRD20TJ102T	RES, CARBON	BN89	KWZPR0800BN89	WIRE , ASS'Y
R727	KRD20TJ473T	RES , CARBON	CN72	KJP05GA19ZM	WAFER
R728	KRD20TJ682T	RES, CARBON	CN80	KJP04GA19ZM	WAFER
R729	KRD20TJ821T	RES , CARBON	CN84, CN85	KJP02GA01ZM	WAFER
R730	KRD20TJ104T	RES , CARBON	CN87	KJP02KA060ZY	WAFER
R731~R734	KRD20TJ103T	RES , CARBON	CN89	KJP07GA19ZM	WAFER
R735	KRD25TJ103T	RES , CARBON	C797	BCKDGS222MD	CAP, CERMAIC
R736~R738	KRD20TJ103T	RES , CARBON	FIP1	KFLSVA10MS11	F. I. P
R739~R743	KRD20TJ102T	RES , CARBON	1041	BVILC4966	1. C
R744, R745	KRD20TJ152T	RES , CARBON	IC72	BRVPNA4612M00F	ISENSOR ,REMOCON
R746	KRD20TJ271T	RES , CARBON	JK71~JK73	KJJ4M023Z	JACK, VCR
R747, R748	KRD20TJ152T	RES , CARBON	JW71	KWZAGD9100JW7	1 JACK , HEAD PHONE
R749~R752	KRD20TJ182T	RES , CARBON	JW72	KWZAGD9100JW7	
R753~R756	KRD20TJ272T	RES , CARBON	SW71	KSH2B003Z	SW , PUSH
R757~R760	KRD20TJ332T	RES , CARBON	SW72	BSR2A006Z	VR , ENCODOR
R761~R764	KRD20TJ562T	RES , CARBON	SW73	KSH1A001ZV	SW , PUSH (MOMS)
R765~R768	KRD20TJ752T	RES , CARBON	VR45	BVVFB03B104Y	V.R., MOTOR
R770~R774	KRD20TJ223T	RES . CARBON	VR71	BVV1U01W104Z	RES , VARIABLE
R775~R779	KRD20TJ103T	RES , CARBON	VR72~VR73	BVV2W02B503Y	RES , VARIABLE
R781	KRD20TJ182T	RES CARBON	X701	KOX08000E160C	CRYSTAL
R782, R783	KRD20TJ103T	RES , CARBON		INPUT PCB ASS'Y	(KOP11174)
R784	KRD20TJ272T	RES , CARBON		KUP11174Z	INPUT PCB
R785~R786	KRD20TJ222T	RES , CARBON	CF11, CF12	BVFE107MSHAT	CERANIC , FILTER
R787	KRD25TJ271T	RES , CARBON	C104	KCCT1H120JC	CAP, CERAMIC
R791~R793	KRD20TJ103T	RES , CARBON	C105	KCQI1H473JZT	CAP MYLAR
R794, R795	KRD25TJ103T	RES , CARBON	C111	KCBS1E223ZFT	CAP CERAMIC
R804~R806	KRD20TJ102T	RES , CARBON	C113	KCEA1CH101B	CAP , CERAMIC
R808, R809	KRD20TJ223T	RES , CARBON	C115~C123	KCBS1E223ZFT	CAP, CERAMIC
R811, R812	KRD20TJ332T	RES , CARBON	C124	KCEA1HH4R7T	CAP, ELECT
R813, R814	KRD20TJ274T	RES , CARBON	C125, C126	KCBS1E223ZFT	CAP, CERAMIC
R815, R816	KRD20TJ332T	RES , CARBON	C127	KCEA1AH471T	CAP, ELECT
R817~R822	KRD20TJ103T	RES , CARBON	C128	KCBS1H102KBT	CAP, CERAMIC
R823, R824	KRD20TJ203T	RES , CARBON	C131, C132	KCCR1H270JC	CAP, CERAMIC
R846	KRD20TJ152T	RES , CARBON	C133~C135	KCBS1H101KBT	CAP , CERAMIC
R884	KRD20TJ103T	RES , CARBON	C136	KCKT1H471KB	CAP, CERAMIC
R885	KRD25TJ103T	RES , CARBON	C137	KCBS1H121KBT	CAP, CERAMIC
R886	KRD25TJ103T	RES , CARBON	C140	KCEA1CH101B	CAP, ELECT
R887	KRD20TJ333T	RES , CARBON	C141	KCBS1H104ZFT	CAP, CERAMIC
R893	KRD20TJ103T	RES , CARBON	C142	KCEA1HH1R0T	CAP , ELECT .
R896	KRD20TJ102T	RES , CARBON	C143	KCBS1104ZFT	CAP , CERAMIC
S701~S737	BST1A014ZT	SW , TACT	C144	KCEA1VH100T	CAP, ELECT
BN53	KWZAGD9250BN		C145	KCBS1E223ZFT	CAP , CERAMIC
BN71	KWZAGD9250BN		C146	KCEA1CH220T	CAP, ELECT
BN72	KWZAGD9250BN		C147	KCBS1C562MXT	CAP , CERAMIC
BN73	KWZPR0800BN7		C148	KCKR1H122KB	CAP , CERAMIC
BN74		WIRE , ASS'Y	C149	KCEA1HKS1R0T	CAP , ELECT
BN75		75 WIRE , ASS'Y	C151	KCEA1CH101T	CAP, ELECT

REF No.	PARTS No.	DESCRIPTION	REF No.	PARTS No.	DESCRIPTION
C152	KCBS1E223ZFT	CAP, CERAMIC	C345, C346	KCEA1VH100T	CAP, ELECT
C153	KCEA1VH100T	CAP, ELECT	C347	KCBS1H101KBT	CAP, CERAMIC
C155	KCEA1HH1R0T	CAP, ELECT	C348	KCBS1E223ZFT	CAP, CERAMIC
C156	KCEA1HHR47T	CAP, ELECT	C349	KCBS1E223ZFT	CAP, CERAMIC
C157, C158	KCEA1HH1R0T	CAP, ELECT	C350	KCEA1VH100T	CAP, ELECT
C160, C161	KCQI1H273JZT	CAP, MYLAR	C351, C352	KCBS1H101KBT	CAP , CERAMIC
C162, C163	KCQI1H392JZT	CAP, MYLAR	C353, C354	KCBS1E223ZFT	CAP, CERAMIC
C164, C165	KCEA1VH100T	CAP, ELECT	C355	KCEA1VH100T	CAP, ELECT
C166, C167	KCEA1HH4R7T	CAP, ELECT	C356, C357	KCBS1E223ZFT	CAP, CERAMIC
C171	KCEA1CH101T	CAP, ELECT	C358, C359	KCEA1VH100T	CAP , ELECT
C172	KCBS1E223ZFT	CAP, CERAMIC	C360	KCBS1H101KBT	CAP, CERAMIC
C180	KCBS1H471KBT	CAP, CERAMIC	C361	KCQE1J124KXT	METAL POLYESTER
C200	KCBS1H104ZFT	CAP, CERAMIC	C362	KCBS1H471KBT	CAP, CERAMIC
C201, C202	KCBS1H180JCT	CAP, CERAMIC	C363	KCQE1J546KXT	CAP, MYLAR
C203, C204	KCBS1H181KBT	CAP, CERAMIC	C413, C414	KCBS1E223ZFT	CAP, CERAMIC
C205~C224	KCBS1H101KBT	CAP, CERAMIC	C415~C416	KCBS1H180JCT	CAP, CERAMIC
C225, C226	KCBS1H102KBT	CAP, CERAMIC	C417~419	KCEA1VH100T	CAP, ELECT
C227, C228	KCQI1H223JZT	CAP, MYLAR	C420	KCBS1H101KBT	CAP, CERAMIC
C229, C230	KCQI1H562JZT	CAP, MYLAR	C430	KCEA1VH100T	CAP, CERAMIC
C231, C232	KCEA1HH4R7T	CAP, ELECT	C431	KCBS1H101KBT	CAP, CERAMIC
C233, C234	KCEA1EH4R7T	CAP, ELECT	C440~C441	KCEA1EH470T	CAP, ELECT
C235, C236	KCBS1E223ZFT	CAP, CERAMIC	C442~C443	KCBS1E223ZFT	CAP, CERAMIC
C237, C238	KCEA1VH100T	CAP, ELECT	C445~C446	KCEA1VH100T	CAP, ELECT
C239~C242	KCBS1E223ZFT	CAP, CERAMIC	C449~C450	KCBS1H101KBT	CAP, CERAMIC
C243, C244	KCBS1H102KBT	CAP, CERAMIC	C451~C452	KCEA1VH100T	CAP, ELECT
C245, C246	KCBS1E223ZFT	CAP, CERAMIC	C453~C454	KCEA1EH470T	CAP, ELECT
C247, C248	KCBS1H101KBT	CAP, CERAMIC	C455~C456	KCBS1E223ZFT	CAP, CERAMIC
C249, C250	KCBS1E223ZFT	CAP, CERAMIC	C457~C458	KCEA1VH100T	CAP, ELECT
C251, C252	KCBS1H471KBT	CAP, CERAMIC	C491~C496	KCQI1H472JZT	CAP, MYLAR
C253~C266	KCEA1VH100T	CAP, ELECT	C501	KCEA1VH100T	CAP, ELECT
C267~C272	KCBS1H101KBT	CAP, CERAMIC	C502	KCBS1H101KBT	CAP, CERAMIC
C273~C278	KCQI1H682ZFT	CAP, MYLAR	C503	KCBS1H270JCT	CAP, CERAMIC
C279~C284	KCBS1H181KBT	CAP, CERAMIC	C504~C505	KCBS1H04ZFT	CAP, CERAMIC
C285~C290	KCBS1E223ZFT	CAP , CERAMIC	C507	KCEA1VH100T	CAP, ELECT
C291~C296	KCEA1VH100T	CAP, ELECT	C508~C509	KCEA1HH3R3T	CAP, ELECT
C301~C306	KCEA1H471KBT	CAP, ELECT	C510~C511	KCBS1H471KBT	CAP, CERAMIC
C307~C310	KCQI1H273ZFT	CAP, MYLAR	C512	KCEA1HH1R0T	CAP, ELECT
C311, C312	KCBS1E223ZFT	CAP, CERAMIC	C513~C514	KCQI1H223JZT	CAP, MYLAR
C313, C314	KCBS1H101KBT	CAP, CERAMIC	C515~C516	KCCR1H270JC	CAP, CERAMIC
C315, C316	KCEA1EH470T	CAP, ELECT	C517~C518	KCBS1H104ZFT	CAP, CERAMIC
C317, C318	KCBS1E223ZFT	CAP, CERAMIC	C519	KCBS1H104ZFT	CAP, CERAMIC
C319	KCEA1VH100T	CAP, ELECT	C520	KCEA1CH101T	CAP, ELECT
C321, C322	KCBS1H101KBT	CAP, CERAMIC	C521	KCBS1E103ZFT	CAP, CERAMIC
C323, C324	KCBS1H181KBT	CAP, CERAMIC	C522	KCBS1H104ZFT	CAP, CERAMIC
C325~C328	KCBS1E223ZFT	CAP, CERAMIC	C523	KCEA1AH471T	CAP, ELECT
C329, C330	KCQI1E273ZFT	CAP, MYLAR	C524	KCBS1H104ZFT	CAP, CERAMIC
C331, C332	KCEA1VH100T	CAP ELECT	C525	KCEA1CH101T	CAP, ELECT
C333	KCBS1H101KBT	CAP , CERAMIC	C526	KCBS1H104ZFT	CAP, CERAMIC
C334, C335	KCBS1E223ZFT	CAP, CERAMIC	C527~C528	KCCR1H220JC	CAP, CERAMIC
C336, C337	KCQI1H273JZT	CAP, MYLAR	C529	KCEA1CH101T	CAP, ELECT
C338, C339	KCEA1VH100T	CAP, ELECT	C531	KCBS1EH103ZFT	CAP, CERAMIC
C340	KCBS1H101KBT	CAP, CERAMIC	C532	KCBS1H181KBT	CAP, CERAMIC
C341, C342	KCBS1E223ZFT	CAP, CERAMIC	C560	KCEA1CH101T	CAP, ELECT
C343, C344	KCQI1H273JZT	CAP, MYLAR	C561	KCBS1H104ZFT	CAP, CERAMIC

REF No.	PARTS No. DESCRIPTION	REF No.	PARTS No.	DESCRIPTION
D101	BVDSVC342LT DIODE , VARICAP	R155	KRD20TJ472T	RES, CARBON
D150	KVDMTZJ7.5AT DIODE , ZENER	R157	KRD20TJ101T	RES . CARBON
D190	KVDMTZJ5.1BT DIODE , ZENER	R158,R159	KRD20TJ562T	RES , CARBON
IC12	BVILA1836M I. C , (IF+MPX)	R160,R161	KRD20TJ222T	RES , CARBON
IC20	KVIKIC9164AF I. C , FUNTION	R162,R163	KRD20TJ752T	RES , CARBON
IC21	BVINJM4558MTE1 I. C	R180	KRD20TJ101T	RES . CARBON
IC23	KVIKIC9163AF I. C , FUNTION	R199	KRD25TJ221T	RES , CARBON
IC24	BVINJM4558MTE1 I. C	R200	KRD20TJ184T	RES, CARBON
IC25~IC29	BVINJM4565MDTE1 I. C	R201,R202	KRD20TJ471T	RES, CARBON
IC30	KVIKIC9163AF I. C , FUNTION	R203,R204	KRD20TJ391T	RES, CARBON
IC31~IC38	BVINJM4558MTE1 I. C	R205,R206	KRD20TJ473T	RES , CARBON
IC40~IC43	BVINJM4565MDTE1 I. C	R207,R208	KRD20TJ102T	RES, CARBON
IC51	BVITC74HCU04AFN1. C , INVERTER	R209,R210	KRD20TJ473T	RES , CARBON
IC52	BVIC\$4226 I. C , CODEC	R211,R212	KRD20TJ102T	RES, CARBON
IC53	BVIDSP56009FJ88 I. C , AC3 DSP	R213,R214	KRD20TJ473T	RES , CARBON
IC54	BVINN514260ATT6 I. C , DRAM 4M	R215,R216	KRD20TJ102T	RES, CARBON
IC55	BVITMP87PH47U I. C , O. T. P	R217	KRD20TJ184T	RES, CARBON
L130~L510	KLQ02C100KT COIL , AXIAL	R219,R220	KRD20TJ102T	RES , CARBON
Q106	KVTKTC31940 T. R	R221,R222	KRD20TJ473T	RES , CARBON
Q109~Q110	KVTKSC2785YT T. R	R223,R224	KRD20TJ222T	RES, CARBON
Q111	KVTDTC114YST T. R	R225,R226	KRD20TJ102T	RES, CARBON
Q112	KVTDTA114YST T. R	R227,R228	KRD20TJ473T	RES , CARBON
Q113~Q114	KVTDTC114YST T. R	R229~R236	KRD20TJ102T	RES , CARBON
Q115~Q116	KVTKTD1302T T. R	R237~R240	KRD20TJ473T	RES , CARBON
Q401~Q407	KVTKTC2878BT T. R	R241,R242	KRD20TJ184T	RES , CARBON
Q501~Q504	KVTKTC3198YT T. R	R247,R248	KRD20TJ101T	RES , CARBON
R101	KRD20TJ104T RES , CARBON	R249,R250	KRD20TJ184T	RES , CARBON
R107	KRD20TJ471 RES , CARBON	R251,R252	KRD20TJ103T	RES , CARBON
R113	KRD20TJ101T RES , CARBON	R253,R254	KRD20TJ561T	RES , CARBON
R116,R117	KRD20TJ47T RES , CARBON	R255,R256	KRD20TJ224T	RES , CARBON
R118	KRD20TJ331T RES , CARBON	R257,R258	KRD20TJ181T	RES , CARBON
R119	KRD20TJ222T RES , CARBON	R259~R270	KRD20TJ101T	RES , CARBON
R120	KRD20TJ181T RES , CARBON	R271,R272	KRD20TJ472T	RES , CARBON
R121	KRD20TJ471T RES , CARBON	R273,R274	KRD20TJ392T	RES , CARBON
R125	KRD20TJ562T RES , CARBON	R275,R276	KRD20TJ101T	RES , CARBON
R126	•	R277~R282	KRD20TJ152T	RES , CARBON
1				· ·
R127	KRD20TJ103T RES , CARBON	R283~R288	KRD20TJ104T	RES , CARBON RES , CARBON
R128	KRD20TJ102T RES , CARBON	R289~R294	KRD20TJ103T	•
R130~R132	KRD20TJ103T RES , CARBON	R295~R300	KRD20TJ102T	RES , CARBON
R133	KRD20TJ223T RES , CARBON	R301~R306	KRD20TJ472T	RES , CARBON
R134	KRD20TJ103T RES , CARBON	R307~R312	KRD20TJ101T	RES , CARBON
R135	KRD20TJ471T RES CARBON	R313~R315	KRD20TJ181T	RES , CARBON
R136	KRD20TJ273T RES , CARBON	R316	KRD20TJ152T	RES , CARBON
R138	KRD20TJ182T RES , CARBON	R317,R318	KRD20TJ181T	RES , CARBON
R140	KRD20TJ563T RES , CARBON	R319~R322	KRD20TJ104T	RES , CARBON
R142	KRD20TJ222T RES , CARBON	R323,R324	KRD20TJ513T	RES , CARBON
R144	KRD20TJ332T RES , CARBON	R325,R328	KRD20TJ101T	RES , CARBON
R145	KRD20TJ473T RES , CARBON	R329~R332	KRD20TJ183T	RES , CARBON
R146	KRD20TJ104T RES , CARBON	R333,R334	KRD20TJ223T	RES , CARBON
R149	KRD20TJ750T RES , CARBON	R335,R336	KRD20TJ101T	RES , CARBON
R150	KRD25TJ270T RES , CARBON	R337	KRD20TJ104T	RES , CARBON
R151,R152	KRD20TJ102T RES , CARBON	R339,R340	KRD20TJ333T	RES , CARBON
R153	KRD20TJ184T RES , CARBON	R341,R342	KRD20TJ473T	RES , CARBON
R154	KRD20TJ101T RES, CARBON	R343~R347	KRD20TJ101T	RES, CARBON

DEE NA	PARTS No.	DESCRIPTION	REF No.	PARTS No.	DESCRIPTION	
REF No. R348	KRD20TJ513T	RES , CARBON	R464~R467	KRD20TJ101T	RES , CARBON	
R349	KRD201J5131	RES , CARBON	R475,R477	KRD20TJ184T	RES , CARBON	
i .		RES , CARBON	R491~R496		RES , CARBON	
R350	KRD20TJ103T		3	KRD20TJ473T		
R351,R352	KRD20TJ473T	RES , CARBON	R501	KRD20TJ472T	RES , CARBON	
R353	KRD20TJ104T	RES , CARBON	R502	KRD20TJ750T	RES , CARBON	
R354,R355	KRD20TJ101T	RES, CARBON	R503~R506	KRD20TJ103T	RES , CARBON	
R356	KRD20TJ273T	RES, CARBON	R507,R508	KRD20TJ224T	RES , CARBON	
R357	KRD20TJ104T	RES, CARBON	R509	KRD20TJ331T	RES, CARBON	
R358	KRD20TJ513T	RES, CARBON	R510	KRD20TJ102T	RES, CARBON	
R359	KRD20TJ101T	RES, CARBON	R511	KRD20TJ104T	RES , CARBON	
R360	KRD20TJ563T	RES, CARBON	R512	KRD20TJ223T	RES, CARBON	
R361	KRD20TJ103T	RES, CARBON	R513~R522	KRD20TJ153T	RES , CARBON	
R362,R363	KRD20TJ473T	RES , CARBON	R523,R524	KRD20TJ221T	RES , CARBON	
R364,R365	KRD20TJ101T	RES , CARBON	R525~R527	KRD20TJ153T	RES , CARBON	
R366~R369	KRD20TJ273T	RES , CARBON	R528	KRD20TJ472T	RES , CARBON	
R370	KRD20TJ513T	RES , CARBON	R529,R530	KRD20TJ563T	RES , CARBON	
R371	KRD20TJ101T	RES , CARBON	R531	KRD20TJ153T	RES , CARBON	
3						
R372	KRD20TJ104T	RES , CARBON	R546	KRD20TJ750T	RES , CARBON	
R373,R374	KRD20TJ101T	RES, CARBON	R551~R559	KRD20TJ472T	RES , CARBON	
R375	KRD20TJ563T	RES , CARBON	R560	KRD25TJ2R2T	RES , CARBON	
R376	KRD20TJ103T	RES, CARBON	VR11	BVN1PA103B01T	RES, CARBON	
R377,R378	KRD20TJ473T	RES, CARBON	VR12	BVN1PA203B01T	RES , SEMI FIXED	
R379	KRD20TJ153T	RES, CARBON		KNVKSTF404VA	PACK, TUNER	
R380	KRD20TJ273T	RES, CARBON	ANT1	KJJ3S006Z	TERMINAL, ANT	
R381,R382	KRD20TJ101T	RES, CARBON	CF22	BVFPFB450JR3	FILTER , CERAMIC	
R383	KRD20TJ273T	RES, CARBON	CN12	KJP02GA01ZM	WAFER	
R384	KRD20TJ562T	RES, CARBON	CN41	KJP07GB46ZM	WAFER	
R385	KRD20TJ472T	RES , CARBON	CN52	KJP02GA01ZM	WAFER	
R386~R388	KRD20TJ752T	RES , CARBON	CN54	KJP03GB03ZM	WAFER	
R389,R390	KRD20TJ104T	RES , CARBON	CN70	KJP02GA01ZM	WAFER	
R391	KRD20TJ153T	RES , CARBON	CN71	KJP03GA01ZM	WAFER	
R392	KRD20TJ752T	RES , CARBON	CN74,CN79	KJP10GA19ZM	WAFER	
R393,R394	KRD20TJ101T	RES , CARBON	CN81	KJP08GA01ZM	WAFER	
R395	KRD20TJ473T	RES , CARBON	CN88	KJP08GB01ZM	WAFER	
R396,R397	KRD20TJ101T	RES, CARBON	CT01	KCRA020S12	CAP , VARIABLE	
R418,R419	KRD20TJ123T	RES , CARBON	C106	KCQS1H471JZ	CAP , STYROLE	
R422,R423	KRD20TJ473T	RES , CARBON	IC11	BVILMC7001	I. C	
R424,R425	KRD20TJ101T	RES , CARBON	CN52	KJP02GA01ZM	WAFER	
R426,R427	KRD20TJ333T	RES, CARBON	CN54	KJP03GB03ZM	WAFER	
R428,R429	KRD20TJ562T	RES, CARBON	CN70	KJP02GA01ZM	WAFER	
R430~R432	KRD20TJ473T	RES , CARBON	CN71	KJP03GA01ZM	WAFER	
R433	KRD20TJ105T	RES , CARBON	CN74,CN79	KJP10GA19ZM	WAFER	1
R434	KRD20TJ184T	RES , CARBON	CN81	KJP08GA01ZM	WAFER	
R435	KRD20TJ562T	RES, CARBON	CN88	KJP08GB01ZM	WAFER	
R436~R442	KRD20TJ473T	RES , CARBON	CT01	KCRA020S12	CAP , VARIABLE	1
R443	KRD20TJ562T	RES , CARBON	C106	KCQS1H471JZ	CAP, STYROLE	1
R445	KRD20TJ473T	RES , CARBON	IC15	KVIMC7812C	I. C	1
R446	KRD20TJ105T	RES , CARBON	IC42,IC45	KVIKIC9299P	I. C , VOLUME	
R447~R453	KRD20TJ473T	RES , CARBON	JK11,JK12	KJJ4P030Z	JACK , IN/OUT	
R454,R455	KRD20TJ184T	RES , CARBON	JK13,JK14	KJJ4R014Z	JACK , BOARD	1
R456,R457	KRD20TJ473T	RES , CARBON	JK16	KJJ4M026Z	JACK , PIN	
R458,R459	KRD20TJ105T			BJSTORX178A	JMODULE , OPTICAL	
111430.0433	KUDEO191091	RES, CARBON	JK17	DISTORATION	DINIODOLL , OF HOAL	1
R460,R461	KRD20TJ473T	RES, CARBON	JW10	KWZAGD9100JW	TO MIDE ACCIV	1

REF No.	PARTS No.	DESCRIPTION	REF No.	PARTS No.	DESCRIPTION
L104		COIL , AM ANT 2	C931	KCEA1HH470T	CAP, ELECT
L105		COIL , AM OSC	C932	KCKT1H103ZF	CAP , CERAMIC
L107		COIL	C933	KCEA1HH101T	CAP, ELECT
L108,L109		COIL , MPX	C934	KCKT1H103ZF	CAP, CERAMIC
L521		BEAD , CORE	C935,C936	KCEA1HH470T	CAP, ELECT
S101		SW , TACT	C937	KCKT1H103ZF	CAP , CERAMIC
T101		I. F. T , FM	C945	KCEA1VH101T	CAP, ELECT
T102		I. F. T , AM	C947,C948	KCKT1H103ZF	CAP, CERAMIC
X101	BOX07200D320C	CRYSTAL	C949,C951	KCEA1CH101T	CAP, ELECT
X101 X102	BVFZTB456F11	RESONATOR, CERAMIC	C953	KCKT1H103ZF	CAP, CERAMIC
X102 X103	BVFZU450C4N	FILTER , CERAMIC	C966	KCEA1CH101T	CAP, ELECT
X501	KOX24576E220C	CRYSTAL	C969	KCKT1H471KB	CAP, CERAMIC
	KOX08000E160C	CRYSTAL	C970	KCQI1H562JZT	CAP, MYLAR
X502	MAIN PCB AUTO AS		C972~C988	KCEA1EH470T	CAP, ELECT
	KUP11175Z	MAIN PCB	D509~D526	KVDMTZJ27BT	DIODE , ZENER
0504 0500	KCEA1HH4R7T	CAP , ELECT	D527~D592	KVD1N4148MT	DIODE
C501,C502			D613~D639	KVDMTZJ27BT	DIODE , ZENER
C503,C504	KCKT1H471KB KCQI1H102JZT	CAP, CERAMIC CAP, MYLAR	D640~D672	KVD1N4148MT	DIODE
C505,C506			D915	KVD1N4003SRT	DIODE , RECT
C507,C508	KCKT1H471KB	CAP CERAMIC	D923	KVDMTZJ6.8BT	DIODE , ZENER
C513,C514	KCBS1H270JT	CAP CERAMIC	D924	KVD1N4148MT	DIODE
C517,C518	KCCK1H220JC	CAP , CERAMIC	D931,D932	KVD1N4003SRT	DIODE , RECT
C519,C520	KCEA1CH101T	CAP , ELECT	D935	KVDMTZJ30BT	DIODE
C521,C522	KCCT1H030CC	CAP, CERAMIC	D941~D944	KVD1N4003SRT	DIODE , RECT
C523,C524	KCCT1H220JC	CAP, CERAMIC	1	KVDMTZJ5.6BT	DIODE , ZENER
C529,C530	KCKT1H102KB	CAP, CERAMIC	D949,	KVDMTZJ13BT	DIODE , ZENER
C531~C534		CAP, CERAMIC	D951 D971~D995	KVD1N4148MT	DIODE
C535~C544		CAP, MYLAR	•	KVDV1N4003MT	DIODE , RECT
C545,C546	KCEA1HH4R7T	CAP , ELECT	D996	KVD1N4148MT	DIODE
C546	KCEA1CH101T	CAP, ELECT	D997	KVTKTC3200GRT	T. R
C551,C552	KCEA1HH4R7T	CAP, ELECT	Q503~Q516	KVTKSC2785YT	T. R
C555,C556	KCBS1H471KBT	CAP , CERAMIC	Q545,Q546	KVTKTD1302T	T. R
C557,C558		CAP, ELECT	Q559~Q584	KVTDTA144EST	T. R
C561~C564		CAP , CERAMIC	Q585		T. R
C571	KCEA1HH100T	CAP, ELECT	Q591~Q596	KVTKTD1302T KVTDTA144EST	T. R
C585	KCEA1CH103ZFT	CAP, ELECT	Q597	KVTKTD1302T	T. R
C591~C59		CAP, CERAMIC	Q598		T. R
C597	KCEA1CH221T	CAP, ELECT	Q604~Q624	KVTKTC3200GRT	T. R
C601~C60		CAP , ELECT	Q634~Q636	KVTKTC3228YT	T. R
C604~C60		CAP , CERAMIC	Q637~Q639	KVTKSC2785YT	T. R
C607~C60		CAP, MYLAR	Q667~Q669	KVTKTD1302T	T. R
C610~C61		CAP, CERAMIC	Q697,Q698	KVTKSC2316YT	T. R
C619~C62		CAP , CERAMIC	Q923	KVTKSC2785YT	T. R
C625~C62		CAP , CERAMIC	Q925	KVTKTA1271YT	T. R
C628~C63		CAP, ELECT	Q935	KVTKSC2316YT	T. R
C631~C63		CAP , CERAMIC	Q949		T. R
C634~C63		CAP, CERAMIC	Q967	KVTKSC2785YT KVTKSC2785YT	T. R
C643~C64		CAP , CERAMIC	Q968	KVTDTA144EST	T. R
C646~C65		CAP , CERAMIC	Q969		T. R
C652~C66		CAP, MYLAR	Q970	KVTKSA1175YT KVTDTC144EST	T. R
C667~C66		CAP , ELECT	Q971,Q972	KVTDTA144EST	τ. R
C921	KCKT1H103ZF	CAP, CERAMIC	Q973~Q975		T. R
C923	KCEA1CH101T	CAP, ELECT	Q976~9Q978		
C924	KCKT1H103ZF	CAP , CERAMIC	Q984,Q985	KVTKSC2785YT	T. R
C925	KCEA1CH101T	CAP, ELECT	Q986	KVTDTA144EST	T. R

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REF No.	PARTS No.	DESCRIPTION	REF No.	PARTS No.	DESCRIPTION
Q987	KVTDTA1271YT	T. R	R652~R654	KRD20TJ221T	RES , CARBON
Q991,Q992	KVTDTA144EST	T. R .	R667~R669	KRD20TJ222T	RES , CARBON
Q994,Q995	KVTDTC144EST	T. R	R670~R672	KRD20TJ153T	RES, CARBON
R501,R502	KRD20TJ473T	RES, CARBON	R673~R675	KRD20TJ123T	RES, CARBON
R503~R506	KRD20TJ332T	RES, CARBON	R685~R687	KRD20TJ682T	RES CARBON
R507,R508	KRD20TH681T	RES , CARBON	R689,R690	KRD20TJ222T	RES , CARBON
R511,R512	KRD25TJ333T	RES, CARBON	R691,R692	KRD20TJ104T	RES , CARBON
R513~R516	KRD20TJ122T	RES , CARBON	R693	KRD20TJ223T	RES, CARBON
R517,R518	KRD20TJ203T	RES, CARBON	R697,R698	KRD20TJ332T	RES , CARBON
R519,R520	KRD20TJ182T	RES, CARBON	R911~R914	KRD25TJ393T	RES , CARBON
R521,R522	KRD20TJ473T	RES, CARBON	R920	KRD20TJ561T	RES, CARBON
R523,R524	KRD20TJ680T	RES , CARBON	R622	KRD20TJ821T	RES, CARBON
R525,R526	KRD20TJ243T	RES, CARBON	R924	KRD20TJ153T	RES , CARBON
R527,R528	KRD20TJ680T	RES, CARBON	R925	KRD20TJ473T	RES , CARBON
R529,R530	KRD20TJ122T	RES , CARBON	R926~R931	KRD20TJ222T	RES , CARBON
R531,R532	KRD20TJ681T	RES, CARBON	R932~R934	KRD20TJ562T	RES , CARBON
R533,R534	KRD20TJ222T	RES, CARBON	R935	KRD20TJ122T	RES , CARBON
R535,R536	KRD25TJ221T	RES , CARBON	R937	KRD20TJ473T	RES , CARBON
R545,R546	KRD20TJ222T	RES , CARBON	R941,R942	KRD20TJ153T	RES , CARBON
R547,R548	KRD20TJ153T	RES, CARBON	R943~R945	KRD20TJ562T	RES , CARBON
R549,R550	KRD20TJ123T	RES, CARBON	R946	KRD20TJ221T	RES , CARBON
R551,R552	KRD20TJ332T	RES , CARBON	R949	KRD20TJ122T	RES , CARBON
R553,R554	KRD20TJ473T	RES, CARBON	R961~R961	KRD20TJ683T	RES , CARBON
R555,R556	KRD20TJ153T	RES , CARBON	R966	KRD20TJ102T	RES , CARBON
R557,R558	KRD20TJ123T	RES , CARBON	R968	KRD20TJ101T	RES, CARBON
R559,R560	KRD20TJ4R7T	RES, CARBON	R969	KRD20TJ103T	RES , CARBON
R561,R562	KRD20TJ103T	RES, CARBON	R970	KRD20TJ472T	RES , CARBON
R563,R564	KRD20TJ121T	RES , CARBON	R971	KRD20TJ102T	RES , CARBON
R567	KRD20TJ332T	RES, CARBON	R977,R978	KRD20TJ101T	RES, CARBON
R571~R574	KRD20TJ683T	RES, CARBON	R981	KRD20TJ391T	RES , CARBON
R575,R576	KRD20TJ222T	RES, CARBON	R982	KRD20TJ101T	RES, CARBON
R577,R578	KRD20TJ104T	RES, CARBON	R983	KRD20TJ104T	RES, CARBON
R579	KRD20TJ683T	RES, CARBON	R984	KRD20TJ152T	RES, CARBON
R580	KRD20TJ472T	RES, CARBON	R985	KRD20TJ473T	RES, CARBON
R581	KRD20TJ102T	RES, CARBON	R986	KRD20TJ182T	RES , CARBON
R583,R584	KRD20TJ332T	RES, CARBON	R987	KRD20TJ332T	RES, CARBON
R591,R592	KRD20TJ682T	RES, CARBON	R988	KRD20TJ100T	RES, CARBON
R593	KRD20TJ222T	RES, CARBON	R989	KRD20TJ103T	RES , CARBON
R594	KRD20TJ104T	RES, CARBON	R994,R995	KRD20TJ101T	RES, CARBON
R598	KRD20TJ332T	RES, CARBON	R997	KRD25TJ560T	RES , CARBON
R601~R603	KRD20TJ473T	RES, CARBON		BDMMDN4RB4MR	MOTOR
R604~R609	KRD20TJ332T	RES, CARBON	JW42	KWZAGD9100JW42	
R610~R612	KRD20TJ681T	RES, CARBON	Q529,Q530	BVT2SC3419Y	T. R , ILDE CURRENT
R616~R618	KRD25TJ333T	RES , CARBON	Q537,Q538	BVT2SC3856	T. R , POWER
R619~R624	KRD20TJ122T	RES , CARBON	Q539,Q540	BVT2SA1492	T. R , POWER
R625~R627	KRD20TJ203T	RES , CARBON	Q643~Q645	BVT2SC3419Y	T. R , ILDE CURRENT
R628~R630	KRD20TJ182T	RES, CARBON	Q655~Q657	BVT2SC4468	T. R , POWER
R631~R633	KRD20TJ473T	RES , CARBON	Q658~Q660	BVT2SA1695	T. R , POWER
R634~R636	KRD20TJ680T	RES , CARBON		BVDKBU804F	DIODE , BRIDGE
R637~R639	KRD20TJ243T	RES , CARBON	BN52	KWZAGD9250BN52	
R640~R642	KRD20TJ680T	RES , CARBON	BN54	KWZAGD9250BN54	
R643~R645	KRD20TJ122T	RES , CARBON	BN91	KWZAGD9250BN9	
R646~R648	KRD20TJ681T	RES, CARBON	BN93	KWZAGD9250BN9	
R649~R651	KRD20TJ222T	RES , CARBON	BN99	KWZAGD9250BN99	WIER ASS'Y

REF No.	PARTS No.	DESCRIPTION	REF No.	PARTS No.	DESCRIPTION
CN42	KJP02GA01ZM	WAFER	C405	KCEA1VH100T	CAP, ELECT
CN53	KJP12GA19ZM	WAFER	C406	KCEA1EH470T	CAP, ELECT
N75	KJP05GA01ZM	WAFER	C412	KCEA1VH100T	CAP, ELECT
N82	KJP03GA01ZM	WAFER	C413	KCKT1H223ZF	CAP, CERAMIC
N91	KJP09GA19ZM	WAFER	C414	KCEA1AH471T	CAP, ELECT
N94	KJPOJGAĐOZM	WAFER	G415~G419	KGKTIHZZJZF	GAP , GERAMIC
N98	KJP05GA01ZM	WAFER	C901~C907	KCQI1H103JZT	CAP, MYLAR
911,C912	KCET80V822N	CAP, ELECT	C908	KCEA1HH4R7T	CAP, ELECT
915	KCEA1CU332E	CAP, ELECT	D902	KVD1N4148MT	DIODE
C941,C942	KCEA1EH222E	CAP, ELECT	D908	KVDMTZJ6.2BT	DIODE , ZENER
956	KCEA1CH222E	CAP, ELECT	Q401,Q402	KVTKSA733CYT	T. R
971	KCEA1HH221E	CAP, ELECT .	Q405~Q407	KVTDTA114YST	T. R
904	BVDW02GF	DIODE , BRIDGE	R401	KRD20TJ750T	RES, CARBON
T01	KNE75	PLATE , EARTH	R402	KRD20TJ104T	RES, CARBON
C51	BVINJM4556AL	I. C	R403	KRD20TJ750T	RES, CARBON
C95	KVIMC7815VA	I. C ASS'Y	R404,R405	KRD20TJ101T	RES, CARBON
	KVIMC7815C	1. C	R406	KRD20TJ750T	RES, CARBON
C96	KVIMC7915VA	I. C ASS'Y	R407	KRD20TJ104T	RES , CARBON
	KVIMC7915C	1. C	R408	KRD20TJ750T	RES , CARBON
C97	KVIMC7805CZA	I. C ASS'Y	R409,R410	KRD20TJ101T	RES, CARBON
	KVITMC7805C	I. C	R411,R412	KRD20TJ750T	RES, CARBON
K92	KJJ4R014Z	JACK . BOARD	R415	KRD20TJ101T	RES , CARBON
W51	KWEP202110VV	WIER	R416	KRD20TJ103T	RES , CARBON
.541~L663	KLEYK1R8KA	COIL	R417	KRD20TJ101T	RES , CARBON
2523,Q524	BVT2SA1142P	T. R	R418	KRD20TJ103T	RES , CARBON
0525,Q526	BVT2SC2682P	T. R	R419	KRD20TJ101T	RES , CARBON
0531,0532	KVTKTC4370AY	T. R , POWER DRIVER	R420	KRD20TJ103T	RES , CARBON
2533,Q534	KVTKTA1659AY	T. R , POWER DRIVER	R903,R904	KRD25TJ2R2T	RES , CARBON
2646~Q648	KVTKTC4370AY	T. R , POWER DRIVER	R908	KRD20TJ100T	RES , CARBON
2649~Q651	KVTKTA1659AY	T. R , POWER DRIVER	BN41	KWZAGD9250BN41	WIER , ASS'Y
2979	KVTKTD2058YZA	HEAT SINK ASS'Y	BN87	KWZAGD9250BN87	WIER ASS'Y
	KVTKTD2058Y	T. R	BN92	KWZAGD9250BN92	WIER ASS'Y
RY51,RY52	BSL4A004ZU	RELAY		KLZ9V002Z	CORE , FILTER RING
RY61	KSL1A007ZE	RELAY	BN94	KWZAGD9250BN94	WIER , ASS'Y
RY62	BSL4A004ZU	RELAY	BN98	. KWZAGD9250BN98	WIER ASS'Y
R509,R510	KRG1ANJ562H	RES, METAL OXIDE FILM	CN73	KJP06GB03ZM	WAFER
R537~R540	KRF5EKR22	RES , CEMENT	CN92	KJP02GA89ZM	WAFER
R541~R544	KRG1ANJ100H	RES, METAL OXIDE FILM	CN93	KJP04GA10ZM	WAFER
R613~R615	KRG1ANJ562H	RES, METAL OXIDE FILM	CN99	KJP05GB03ZM	WAFER
R655~R660	KRF5EKR22	RES , CEMENT	C420,C421	BCKWKC472MF	CAP, CERAMIC
R661~R666	KRG1ANJ100H	RES, METAL OXIDE FILM	IC41	BVIBA7626	I. C
R905	KRQ1AJR47H	RES , FUSE	JK41	KJJ4S003Z	TERMINAL , IN/OUT
R921	KRG1ANJ272H	RES, METAL OXIDE FILM	JK42	KJJ4N007Z	TERMINAL , IN/OUT
SP51	KJJ5Q006Z	TERMINAL , SPEAKER	OL91	BJJ7A003Z	OUTLET , AC
SP52	KJJ5P011Z	TERMINAL , SPEAKER	PWR2	KLT5J032ZW	TRANS, SUB
SP53	KJJ5N005Z	TERMINAL , SP (R/B)	RY91	KSL4B003ZW	RELAY
TH91	KRTNTC5D103	THERMISTER	RY92	KSL1A007ZE	RELAY
		ASS'Y(KIP11176B)	R901,R902	KRQ1AJR47H	TERMINAL , LUG
	KJCFC5S	HOLDER , FUSE	T901,T902	KJT1A023C8	TERMINAL, LUG
	KUP11176Z	VIDEO PCB			SS'Y(KOP11135B)
C401	KCEA1VH100T	CAP , ELECT	1	KUP11135Z	PCB , REMOCON
C402	KCEA1AH471T	CAP, ELECT	C101, C102	KCBS1H101KBT	CAP, CERAMIC
C403	KCEA1VH100T	CAP, ELECT	C103	KCBS1H104ZFT	CAP , CERAMIC
C404	KCEA1AH471T	CAP, ELECT	C104	KCBS1E103ZFT	CAP , CERAMIC

REF No.	PARTS No.	DESCRIPTION	REF	No.	PARTS No.	DESCRIPTION
C105	KCEA1EH470T	CAP, ELECT				
D101	KCDAFHP52	L. E. D				·
IC10	BVIUPD6125AG83					
Q101	KCTKTC3203YT	T. R				
R102	KRD20TJ221T	RES , CARBON	1			
R103	KRD20TJ3R3T	RES , CARBON				
X101	BSB455EB1	RESONATOR, CERAMIC				
	OTHERS					
F905	KBA2C2500TLE	FUSE				
F907	KBA2C4000TLE KBA2C8000TLU	FUSE FUSE	1			
F903,F904 PWR1	KLT5V019ZW	TRANS MAIN	l			
	BJA2E023Z	CODE POWER				
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